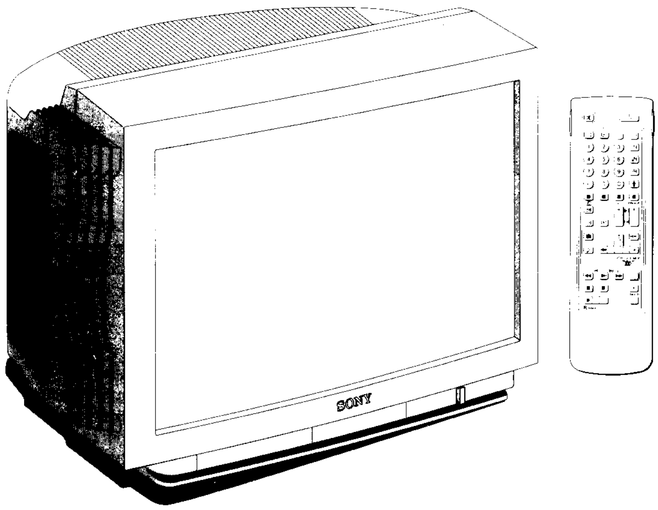
SERVICE MANUAL

AE-2A CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-A2131A	RM-831	Italian	SCC-G12D-A
KV-A2131B	RM-831	French	SCC-G13E-A
KV-A2131D	RM-831	AEP	SCC-G14E-A

MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-A2133E	RM-831	Spanish	SCC-G15E-A
KV-A2132U	RM-831	UK	SCC-G16E-A



MICROFILM

TRINITRON® COLOR TV

SONY®

ITEM MODEL	Television system	Stereo system	Channnel coverage	Color system
Italian	B/G/H, D/K	GERMAN Stereo	ITALIA VHF:A-H2 (C) UHF:21-69 PAL B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 D/K VHF:R01-R12 UHF:R21-R69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
French	B/G/H, D/K L, I	GERMAN Stereo	L VHF:F02-F10 UHF:F21-F60 CABLE:B-Q B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 D/K VHF:R01-R12 UHF:R21-R69 I UHF:B21-B69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
AEP	B/G/H, D/K	GERMAN Stereo	PAL B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 D/K VHF:R01-R12 UHF:R21-R69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
Spanish	B/G/H, D/K	GERMAN/NICAM Stereo	PAL B/G VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 D/K VHF:R01-R12 UHF:R21-R69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
UK	I	NICAM Stereo	UHF : B21-B69	PAL SECAM, NTSC 4.43 NTSC 3.58 (VIDEO IN)

MODEL	Italian	French	AEP	Spanish	UK
Power consumption	87 W	139Wh	98 Wh	99 Wh	122 W

Picture tube	Hi-Black Trinitron Approx. 54.5 cm (21inches) (Approx. 51 cm picture measured diagonally) 100 ° -deflection

【REAR】

-⊖ 1 21-pin Euro connector
(CENELEC standard)
Inputs for audio and video signals
- inputs for RGB
- outputs of TV video and audio signals

⊖ 2/-⊖ 2 21-pin Euro connector
- inputs for audio and video signals
- inputs for S video
- outputs for audio and video signals (selectable)

⊖ Audio outputs (Variable) - phono jacks

【FRONT】

-⊖ 3 Video input-phono jack
-⊖ Audio input-phono jacks
-⊖ 3 S video input 4-pin DIN
Ω Headphone jack : Stereo minijack

Sound output	2×15 (RMS) 2×30 (Music)
Power reqirement	220-240V
Dimensions	Approx.606 x 440 x495 mm
Weight	Approx.32kg
Supplied accessories	RM-831 Remote Commander (1) IEC designation R6 batteries (2)
Other features	NICAM, FASTEXT

【RM-831】

Remote control system	infrared control
Power requirements	3V dc 2 batteries IEC designation R6 (size AA)
Dimentions	Approx.65×225×21mm (w/h/d)
Weight	Approx.157g (Not including Batteries)

Design and specifications are subject to change without notice.

Model name Item	KV-A2131A	KV-A2131B	KV-A2131D	KV-A2133E	KV-A2132U
Pal Comb	ON	OFF	ON	ON	ON
PiP	OFF	ON	OFF	OFF	OFF
RGB Priority	ON	ON	OFF	OFF	OFF
Woofer Box	OFF	OFF	OFF	OFF	OFF
Scart 1	ON	ON	ON	ON	ON
Scart 2	ON	ON	ON	ON	ON
Front in (3)	ON	ON	ON	ON	ON
Scart 4	OFF	OFF	OFF	OFF	OFF
Dyn. Convergence	OFF	OFF	OFF	OFF	OFF
Projector	OFF	OFF	OFF	OFF	OFF
AKB in 16:9 mode	ON	ON	ON	ON	ON
Norm B/G	ON	ON	ON	ON	OFF
Norm I	OFF	ON	OFF	OFF	ON
Norm D/K	ON	ON	ON	ON	OFF
Norm AUS	OFF	OFF	OFF	OFF	OFF
Norm L	OFF	ON	OFF	OFF	OFF
Norm SAT	OFF	OFF	OFF	OFF	OFF
Norm M	OFF	OFF	OFF	OFF	OFF
Language Preset	Italiano	Francais	Deutsch	None	English

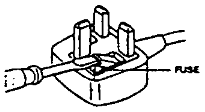
WARNING KV-A2532U only

The flexible mains lead is supplied to connected a B.S. 1363 fused plug having a fuse of 5 amp capacity. Should the fuse need to be replaced, use a 5 AMP FUSE approved by ASTA to BS 1362, ie carries the ◈ mark.

If the plug supplied with this appliance is not suitable for your socket outlets in your home, it should be cut off and an appropriate plug fitted.

The plug severed from the mains lead must be destroyed as a plug with bared wires is dangerous if engaged in a live socket outlet.

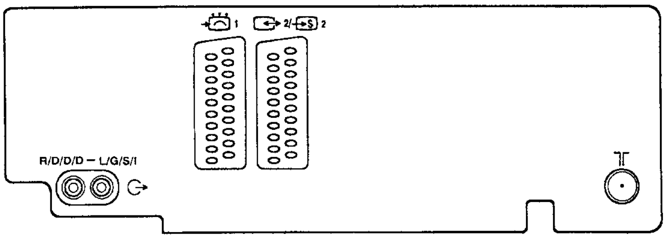
When an alternative type of plug ist used it should be fitted with a 5 AMP FUSE, otherwise the circuit should be protected by a 5 AMP FUSE at the distribution board.

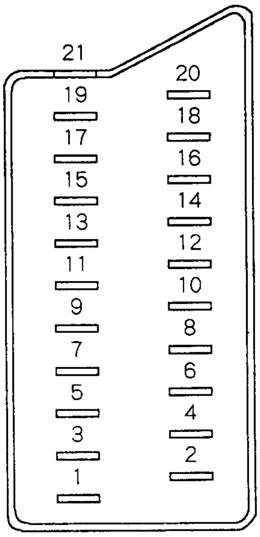


How to replace the fuse

Open the fuse compartment with the blade screwdriver, and replace the fuse.

21 pin connector (⊡1 ⇄2/⇄4)





Pin No	1	2	Signal	Signal level
1	○	○	Audio output B (right)	Standard level : 0.5Vrms Output impedance : Less than 1kohm *
2	○	○	Audio input B (right)	Standard level : 0.5Vrms Input impedance : More than 10kohms *
3	○	○	Audio output A (left)	Standard level : 0.5Vrms Output impedance : Less than 1kohm *
4	○	○	Ground (audio)	
5	○	○	Ground (blue)	
6	○	○	Audio input A (left)	Standard level : 0.5Vrms Input impedance : More than 10kohms *
7	○	●	Blue input	0.7 ± 3dB, 75ohms, positive
8	○	○	Function select (AV control)	High state (9.5 – 12V) : Part mode Low state (0 – 2V) : TV mode Input impedance : More than 10kohms Input capacitance : Less than 2nF
9	○	○	Ground (green)	
10	○	○	Open	
11	○	●	Green	Green signal : 0.7V ± 3dB, 75ohms, positive
12	○	○	Open	
13	○	○	Ground (red)	
14	○	○	Ground (blanking)	
15	○	–	Red input	0.7V ± 3dB, 75ohms, positive
	–	○	(S signal) croma input	0.3V ± 3dB, 75ohms, positive
16	○	●	Blanking input (Ys signal)	High state (1 – 3V) Low state (0 – 0.4V) Input impedance : 75ohms
17	○	○	Ground (video output)	
18	○	○	Ground (video input)	
19	○	○	Video output	1V ± 3dB, 75ohms, positive Sync : 0.3V (– 3, + 10dB)
20	○	–	Video input	1V ± 3dB, 75ohms, positive Sync : 0.3V (– 3, + 10dB)
	–	○	Video Input/Y (S signal)	1V ± 3dB, 75ohms, positive Sync : 0.3V (– 3, + 10dB)
21	○	○	Common ground (plug, shield)	

○ Connected ● unconnected (open) * at 20Hz – 20kHz

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CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND, IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION!!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÂSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE.
LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÈS PAR UNE TRAME ET PAR UNE MARQUE ⚠ SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIECES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÉCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY.

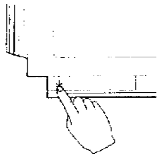
SECTION 1
GENERAL

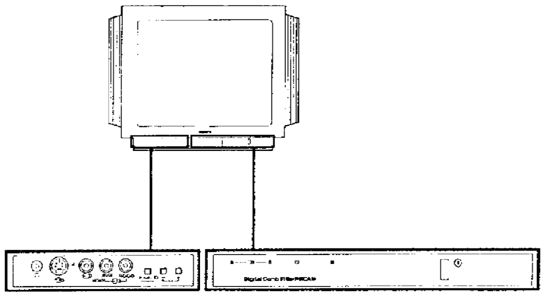
The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remein as in the manual.

Overview

This section briefly describes the buttons and controls on the TV set and on the Remote Commander. For more information, refer to the pages given next to each description.

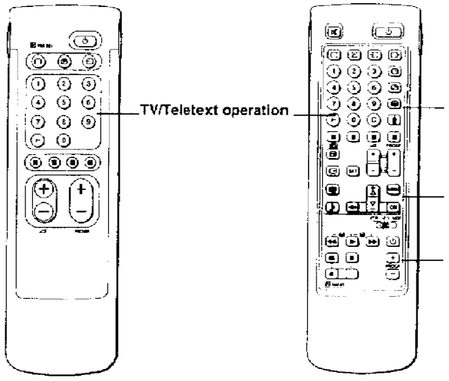
TV set - front





Symbol	Name	Refer to page
⏻	Main power switch	13
⏻	Standby indicator	13
A-◯-B	Stereo A/B indicators	15
∩	Headphones jack	21
⇥S3, ⇥3, ⇥3.	Input jacks (S-video/video/audio)	21
P→◢→⇥	Function selector (Programme/volume/input)	14
– +	Adjustment buttons for function selector	14

Remote Commander



Simple side

Full-Function side

Note
The SAT button does not operate with this TV.

TV operation

Symbol	Name	Refer to Page
🔇	Mute on/off button	14
⏻	Standby button	13
○	TV power on/TV mode selector button	13
⊜	Teletext button	14
⇥	Input mode selector	14
↦	Output mode selector	21
1,2,3,4,5,6, 7,8,9, and 0	Number buttons	13
-/--	Double-digit entering button	13
C	Direct channel entering button	10
◢+/–	Volume control button	13
PROGR +/–	Programme selectors	13
⊞⊟	Teletext page access buttons	18
●	Picture adjustment button	15
♪	Sound adjustment button	15
⊡	On-screen display button	14
⊠	Teletext hold button	18
⊙	Time display button	14
■■■■	Fastext buttons	17

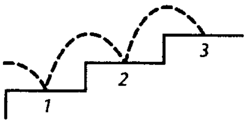
Menu operation

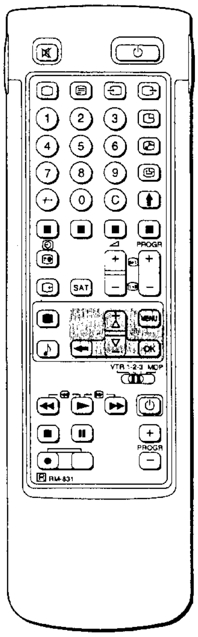
Symbol	Name	Refer to Page
MENU	Menu on / off button	7
△+/▽–	Select buttons	7
OK	OK (confirming) button	7
←	Back button	7

Video operation

Symbol	Name	Refer to Page
VTR1/2/3 MDP	Video equipment selector	25
◀◀ ▶ ▶▶ ■ ❚❚ ● ⏻ PROGR +/–	Video equipment operation buttons	25

Step 3 Tuning in to TV Stations





Once you have set up the TV, you can choose the language of the menu. Then you should preset the channels (up to 100 channels) by choosing either the automatic or manual method.

The automatic method is easier if you want to preset all receivable channels at once. Use the manual method if you only have a few channels and want to preset channels one by one. The manual method is also convenient for allocating programme numbers to various video input sources.

Before you begin

- Check that the Full-Function side of the Remote Commander is visible.
- Locate Menu operation buttons on the Remote Commander. They are shaded in the illustration at the left.

❶ Choose a language

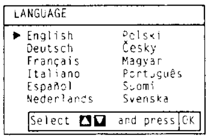
1 Depress ⏻ on the TV.

The TV will switch on. If the standby indicator on the TV is lit, press ▭ or a number button on the Remote Commander.

2 Press the MENU button.
The `LANGUAGE` menu appears.

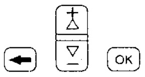
MENU

3 Select the language you want with △+ or ▽–, and then press OK



```
LANGUAGE
▶ English        Polski
  Deutsch        Česky
  Français       Magyar
  Italiano       Português
  Español        Suomi
  Nederlands     Svenska
  Select ▲▼ and press OK
```

Fig. 1.



❷ Display the Menu

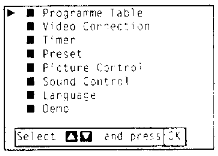
1 Press the ⬅ button.
The main menu appears. (See Fig. 2)

Now, choose one of the methods described overleaf:

"Preset Channels Automatically"

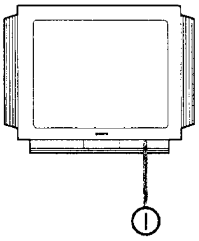
or

"Preset Channels Manually".



```
▶ ■ Programme Table
  ■ Video Connection
  ■ Timer
  ■ Preset
  ■ Picture Control
  ■ Sound Control
  ■ Language
  ■ Demo
 Select ▲▼ and press OK
```

Fig. 2.



To go back to main menu:
Keep pressing ⬅.

To go back to the normal TV picture:
Press MENU. Normal TV picture will be restored after one minute if menu functions are not selected.

Note on the Demo function:
If you choose Demo on the main menu, you can see a sequential demonstration of the menu functions.

With this method, you can preset all receivable channels at once.

To stop automatic channel presetting:
Press ⬅ on the Remote Commander.

Notes:
- After presetting the channels automatically, you can check which channels are stored on which programme positions. For details, see "Using the Programme Table" on page 16.
- You can exchange the programme positions to have them appear on screen in the order you like. For details, see "Exchanging the Programme Positions" on page 10.

❸ Preset channels automatically

1 Select `Preset` with △+ or ▽– and press OK.
The `PRESET` menu appears. (See Fig. 3.)

2 Select `Auto Programme` with △+ or ▽– and press OK.
The `AUTO PROGRAMME` menu appears. (See Fig. 4.)

3 Press OK repeatedly until the first element of the "PROG" number is highlighted.

4 Select the programme (number button) from which you want to start presetting. Select the first element of the double-digit number with △+ or ▽– or the number buttons (e.g. For "04", select "0" here) and press OK.
The second element of "PROG" will be highlighted.

5 Select the second element of the double-digit number with △+ or ▽– or the number buttons (e.g. For "04", select "4" here) (See Fig. 5.) and press OK.

6 The automatic channel presetting starts.
When presetting is finished, the preset menu reappears. All available channels are now stored on successive number buttons. (Press menu to restore normal TV picture).

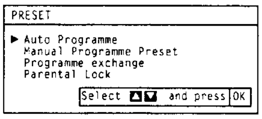
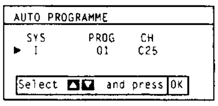
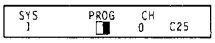


Fig. 3.



```
AUTO PROGRAMME
  SYS        PROG    CH
▶ I           01     C25

Select ▲▼ and press OK
```

Fig. 4.



```
SYS          PROG    CH
 I            ▮    0    C25
```

Fig. 5.

Use this method if there are only a few channels in your area to preset or if you want to preset channels one by one. You may also allocate programme numbers to various video input sources.

If you have made a mistake:
Press ⬅ to go back to the previous position.
To go back to main menu
Keep pressing ⬅.
To go back to the normal TV picture
Press MENU.

❸ Preset channels manually

1 Select `Preset` with △+ or ▽– and press OK.
The `PRESET` menu appears. (See Fig. 6.)

2 Select `Manual Programme preset` with △+ or ▽– and press OK.
The `MANUAL PROGRAMME PRESET` menu appears. (See Fig. 7.)

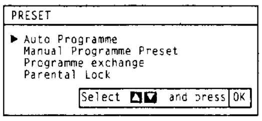
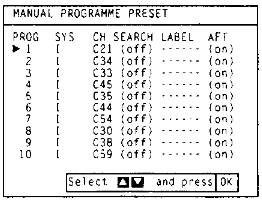


Fig. 6.

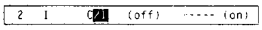


```
MANUAL PROGRAMME PRESET
PROG  SYS   CH SEARCH LABEL   AFT
▶ 1   I     C21 (off) ------ (on)
  2   I     C34 (off) ------ (on)
  3   I     C33 (off) ------ (on)
  4   I     C45 (off) ------ (on)
  5   I     C35 (off) ------ (on)
  6   I     C44 (off) ------ (on)
  7   I     C54 (off) ------ (on)
  8   I     C30 (off) ------ (on)
  9   I     C38 (off) ------ (on)
 10   I     C59 (off) ------ (on)

          Select ▲▼ and press OK
```

Fig. 7.

3 Using △+ or ▽–, select the programme position (number button) to which you want to preset a channel, and press OK.

4 Keep pressing ▽– to select programme numbers higher than 10.



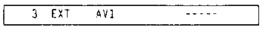
```
2   I      C21  (off)     ----- (on)
```

Fig.8.

To tune in a channel by frequency:
After selecting F in step 6, enter three digits using the number buttons.
Press OK.

5 Select, if necessary, a video input source (EXT) with △+ or ▽–. Then press OK. The first element of the CH position will be highlighted. (See Fig. 8.)

6 Using △+ or ▽–, select C (to preset a regular channel), or F (to tune in by frequency) and press OK.
The first element of the "CH" number will be highlighted.
If you have selected EXT in step 4, select the video input source with △+ or ▽–. (See Fig. 9.)



```
  3  EXT    AV1            -----
```

Fig.9.

Please refer to "Television Channel Number Guide" on page 24.

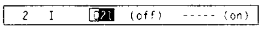
There are two ways to preset channels. If you know the channel number, go to step "7-Manual",

or

if you don't know the channel number, go to step "7- Search".

7 ***Manual***

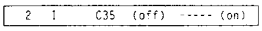
-a Select the first element of the "CH" number with △+ / ▽– or the number buttons and press OK.
The second element of the "CH" number will be highlighted.



```
2   I      C21  (off)     ----- (on)
```

Fig.10.

-b Select the second element of the number with △+ / ▽– or the number buttons.
The selected number appears. (See Fig. 10.)



```
2   I      C35  (off)     ----- (on)
```

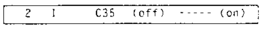
Fig.11.

-c Press OK
The "SEARCH" position is highlighted and the selected channel is now stored. (See Fig. 11.)

-d Press OK until the cursor appears by the next programme position.

-e Repeat steps 3 to 7 to preset other channels.

If you have made a mistake:
Press ⟵ to go back to the previous position.
To go back to main menu
Keep pressing ⟵.
To go back to the normal TV picture
Press MENU.

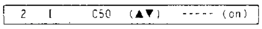


```
2   I      C35  (off)     ----- (on)
```

Fig.12.

7 ***Search***

-a Press OK repeatedly until the colour of the SEARCH position changes.



```
2   I      C50  (▲▼)      ----- (on)
```

Fig.13.

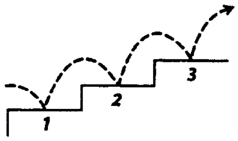
-b Start searching for the channel with △+ (up) or ▽– (down).
The CH position changes colour. (See Fig. 12.)
The CH number starts counting up or downwards. When a channel is found, it stops. (See Fig. 13.)

-c Press OK if you want to store this channel. If not, press △+ or ▽– to continue channel searching.

-d Press OK until the cursor appears by the next programme position.

-e Repeat steps 3 to 7 to preset other channels.

Additional Presetting Functions

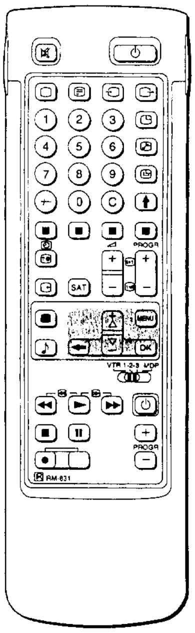


This section shows you additional presetting functions such as exchanging or skipping programme positions, captioning a station name, manual fine-tuning, and using the parental lock.

Before you begin

- Check that the Full Function side of the Remote Commander is visible
- Locate the Menu operation buttons.

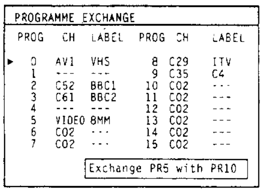
PROGRAMME EXCHANGE



Exchanging Programme Positions

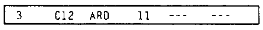
With this function, you can exchange the programme positions to a preferable order.

1. Press MENU to display the main menu.
2. Select `Preset` with △+ or ▽– and press OK.
   The `PRESET` menu appears.
3. Select `Programme exchange` with △+ or ▽– and press OK.
   The `PROGRAMME EXCHANGE` menu appears. (See Fig. 14.)
4. Using △+ or ▽–, select the programme position you want to exchange with another and press OK.
   The colour of the selected position changes. (See Fig. 15.)
5. Using △+ or ▽–, select the programme posititon to be exchanged and press OK. Now the two programme positions have been exchanged. (See Fig. 16.)
6. Repeat steps 4 and 5 to exchange other programme positions.



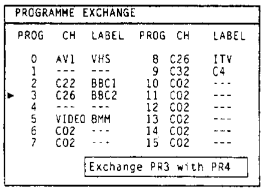
```
 PROGRAMME EXCHANGE
  PROG   CH   LABEL   PROG  CH    LABEL

▶  0    AV1   VHS        8  C29    ITV
   1    ---   ---        9  C35    C4
   2    C52   BBC1      10  C02    ---
   3    C61   BBC2      11  C02    ---
   4    ---   ---       12  C02    ---
   5    VIDEO 8MM       13  C02    ---
   6    C02   ---       14  C02    ---
   7    C02   ---       15  C02    ---

                 Exchange PR5 with PR10
```

Fig. 14.



```
 3      C12  ARD     11   ---     ---
```

Fig. 15.



```
 PROGRAMME EXCHANGE
  PROG   CH   LABEL   PROG  CH    LABEL

   0    AV1   VHS        8  C26    ITV
   1    ---   ---        9  C32    C4
   2    C22   BBC1      10  C02    ---
▶  3    C26   BBC2      11  C02    ---
   4    ---   ---       12  C02    ---
   5    VIDEO 8MM       13  C02    ---
   6    C02   ---       14  C02    ---
   7    C02   ---       15  C02    ---

                 Exchange PR3 with PR4
```

Fig. 16.

For higher programme positions:
The display scrolls automatically.

Tuning in a Channel Temporarily

You can tune in a channel temporarily, even when it has not been preset. Use the buttons on the Full-Function side of the Remote Commander.

Ⓒ

1. Press C on the Remote Commander.
   The indication "C" appears on the screen.
2. Enter the double-digit channel number using the number buttons (e.g. for channel 4, first press 0, then 4).
   The channel appears.
   However, the channel will not be stored.

If you have made a mistake:
Press ← to go back to the previous position.

To go back to main menu:
Keep pressing ←.

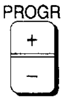
To go back to the normal TV picture:
Press MENU.

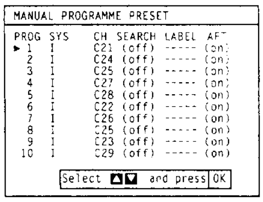
MANUAL PROGRAMME PRESET

Skipping Programme Positions

You can skip unused programme positions when selecting programmes with the PROGR +/- buttons. However, the skipped programmes may still be called up when you use the number buttons.

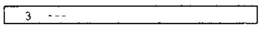
1 Press MENU to display the main menu.
2 Select `Preset` with △+ or ▽– and press OK.
The `PRESET` menu appears.
3 Select `Manual Programme Preset` with △+ or ▽– and press OK.
The `MANUAL PROGRAMME PRESET` menu appears. (See Fig.18.)
4 Using △+ or ▽–, select the programme position which you want to skip and press OK.
The "SYSTEM" position changes colour.
5 Press △+ or ▽– until – – – appears in the SYSTEM position. (See Fig. 18.)
6 Press OK. (See Fig. 19.)
When you select programmes using the PROGR +/– buttons, the programme position will be skipped.
7 Repeat steps 4 to 6 to skip other programme positions.





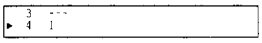
```
MANUAL PROGRAMME PRESET

PROG SYS    CH  SEARCH LABEL AFT
▶ 1   I     C21 (off)  ----- (on)
  2   I     C24 (off)  ----- (on)
  3   I     C25 (off)  ----- (on)
  4   I     C27 (off)  ----- (on)
  5   I     C28 (off)  ----- (on)
  6   I     C22 (off)  ----- (on)
  7   I     C26 (off)  ----- (on)
  8   I     C25 (off)  ----- (on)
  9   I     C23 (off)  ----- (on)
 10   I     C29 (off)  ----- (on)

       Select ▲▼  and press OK
```

Fig. 17.



```
  3  ---
```

Fig. 18.



```
  3  ---
▶ 4  I
```

Fig. 19.

MANUAL PROGRAMME PRESET

Captioning a Station Name

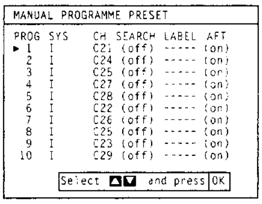
You can "name" a channel or an input video source using up to five characters (letters or numbers) to be displayed on the TV screen (e.g. BBC1). Using this function, you can easily identify which channel or video source you are watching.

1 Press MENU to display the main menu.
2 Select `Preset` with △+ or ▽– and press OK.
The `PRESET` menu appears.
3 Select `Manual Programme Preset` with △+ or ▽– and press OK.
The `MANUAL PROGRAMME PRESET` menu appears. (See Fig. 20.)
4 Using △+ or ▽–, select the programme position you want to caption and press OK repeatedly until the first element of the LABEL position is highlighted.
5 Select a letter or number with △+ or ▽– and press OK.The next element will be highlighted.
Select other characters in the same way. If you want to leave an element blank, select – and press OK. (See Fig. 21.)
6 After selecting all the characters, press OK repeatedly until the cursor appears by the next programme position (at the left margin). Now the caption you chose is stored. (See Fig. 22.)
7 Repeat steps 5 and 6 to caption names for other channels.

If you have made a mistake:
Press ⬅ to go back to the previous position.

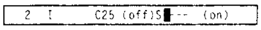
To go back to main menu:
Keep pressing ⬅.

To go back to the normal TV picture:
Press MENU.



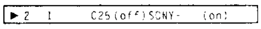
```
MANUAL PROGRAMME PRESET

PROG SYS    CH  SEARCH LABEL AFT
▶ 1   I     C21 (off)  ----- (on)
  2   I     C24 (off)  ----- (on)
  3   I     C25 (off)  ----- (on)
  4   I     C27 (off)  ----- (on)
  5   I     C28 (off)  ----- (on)
  6   I     C22 (off)  ----- (on)
  7   I     C26 (off)  ----- (on)
  8   I     C25 (off)  ----- (on)
  9   I     C23 (off)  ----- (on)
 10   I     C29 (off)  ----- (on)

       Select ▲▼  and press OK
```

Fig. 20.



```
  2   I     C25 (off)S█--   (on)
```

Fig. 21.



```
▶ 2   I     C25(off)SONY-   (on)
```

Fig. 22.

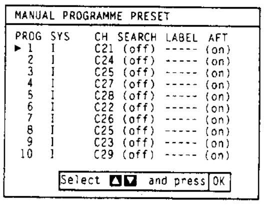
MANUAL PROGRAMME PRESET

Manual Fine-Tuning

Normally, the AFT(automatic fine-tuning) is already operating. However, if the picture is distorted, you can use the manual fine tuning function to obtain better picture reception.

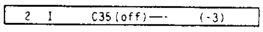
1. Press MENU to display the main menu.
2. Select `Preset` with △+ or ▽− and press OK.
   The `PRESET` menu appears.
3. Select `Manual Programme Preset` with △+ or ▽− and press OK.
   The `MANUAL PROGRAMME PRESET` menu appears. (See Fig. 23.)
4. Using △+ or ▽−, select the programme position corresponding to the channel which you want to manually fine-tune, and press OK repeatedly until the AFT position changes colour.
5. Fine-tune the channel with △+ or ▽− so that you get the best TV reception. As you press the cursor buttons, the frequency changes from −15 to +15. (See Fig. 24.)
6. After fine tuning, press OK.
   The cursor appears beside the next programme position (at the left margin). (See Fig. 25.) Now the fine-tuned level is stored.
7. Repeat steps 4 to 6 to fine-tune other channels.

To reactivate AFT (automatic fine tuning):
Repeat from the beginning and select "ON" in step 5.



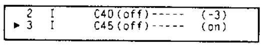
```
MANUAL PROGRAMME PRESET
PROG  SYS    CH  SEARCH LABEL  AFT
▶ 1    I     C21 (off)  -----  (on)
  2    I     C24 (off)  -----  (on)
  3    I     C25 (off)  -----  (on)
  4    I     C27 (off)  -----  (on)
  5    I     C28 (off)  -----  (on)
  6    I     C22 (off)  -----  (on)
  7    I     C26 (off)  -----  (on)
  8    I     C25 (off)  -----  (on)
  9    I     C23 (off)  -----  (on)
 10    I     C29 (off)  -----  (on)
         Select ▲▼  and press OK
```

Fig. 23.



```
 2   I       C35(off)—-      (-3)
```

Fig. 24.



```
  2   I      C40(off)-----   (-3)
▶ 3   I      C45(off)-----   (on)
```

Fig. 25.

PARENTAL LOCK

Parental Lock

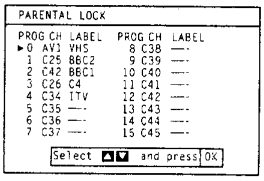
You can prevent undesirable broadcasts from appearing on the screen. We suggest you use this function to prevent children from watching programmes which you consider unsuitable.

1. Press MENU to display the main menu.
2. Select `Preset` with △+ or ▽− and press OK.
   The `PRESET` menu appears.
3. Select `Parental Lock` with △+ or ▽− and press OK.
   The `PARENTAL LOCK` menu appears. (See Fig. 26.)
4. Using △+ or ▽−, select the programme position you want to block and press OK.
   CH and LABEL, of the selected programme number, change colour indicating that this programme is now blocked. (See Fig. 27.)
5. Repeat step 4 to block other programme positions.

Cancelling blocking

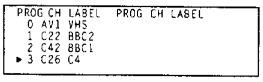
1. On the `PARENTAL LOCK` menu, select the programme position you want to unblock with △+ or ▽−.
2. Press OK.
   CH and LABEL change to normal colour indicating that the blocking has been cancelled.

If you try to select a programme that has been blocked:
The message "LOCKED" appears on the blank TV screen.



```
PARENTAL LOCK
PROG CH  LABEL   PROG CH  LABEL
▶0   AV1 VHS        8 C38 —-
 1   C25 BBC2       9 C39 —-
 2   C42 BBC1      10 C40 —-
 3   C26 C4        11 C41 —-
 4   C34 ITV       12 C42 —-
 5   C35 —-        13 C43 —-
 6   C36 —-        14 C44 —-
 7   C37 —-        15 C45 —-
      Select ▲▼  and press OK
```

Fig. 26.

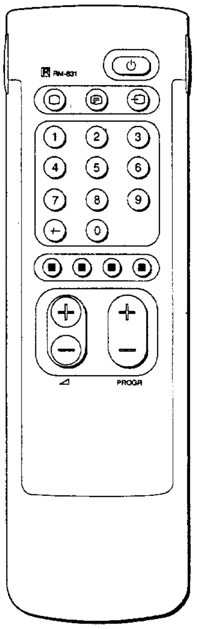


```
PROG CH  LABEL   PROG CH LABEL
 0   AV1 VHS
 1   C22 BBC2
 2   C42 BBC1
▶3   C26 C4
```

Fig. 27.

Operating Instructions

Watching the TV



If no picture appears when you depress ⏼ on the TV

and if the standby indicator on the TV is lit, the TV is in standby mode. Press ○ or one of the number buttons to switch it on.

This section explains the basic functions you use while watching TV. Most of the operations can be done using the simple side of the Remote Commander.

Switching the TV on and off

Switching on

Depress ⏼on the TV.

Switching off temporarily

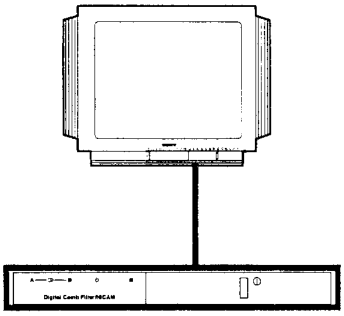
Press ⏻ on the Remote Commander.
The TV enters standby mode and the standby indicator on the front of the TV lights up.

To switch on again

Press ○, PROGR +/–, or one of the number buttons on the Remote Commander.

Switching off completely

Depress ⏼ on the TV.



Selecting TV Programmes

Press PROGR +/– or press number buttons.

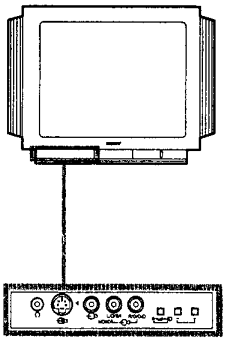
To select a double-digit number

Press -/– –, then the numbers.
For example, if you want to choose 23, press -/– –, 2, and 3.

Adjusting the Volume

Press ⊿ +/–.

Operating the TV Using the Buttons on the TV



With the buttons on the TV, you can select programmes, adjust the volume, and select video input sources.

- Press P-⊿-⇥ button repeatedly until the programme number, ⊿ (for volume), or ⇥ (for video input picture) appears. Then adjust with the –/+ buttons.
- Press –/+ buttons to switch on the TV from the standby mode.
- Press –/+ simultaneously to reset picture and sound controls to the factory preset level (RESET symbol →•← is displayed).

Watching Teletext or Video Input

For details of the teletext operation, refer to page 17.

Watching teletext

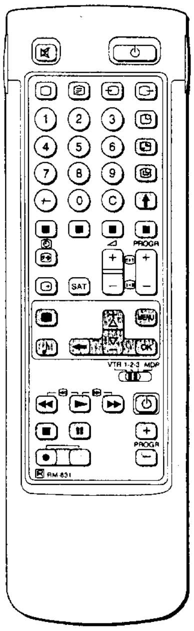
- Press ⊜ to view the teletext.
- Press three number buttons to select a page.
- Press one of the coloured buttons for fastext operation.
- Press ⊞ (PAGE +) or ⊟ (PAGE –) for the next or preceeding page.
- To go back to the normal TV picture, press ▢.

For details of the video input picture, refer to page 21.

Watching a video input picture

Press ⇥ repeatedly until the desired video input appears. To go back to the normal TV picture, press ▢.

More Convenient Functions



Use the Full-Function side of the Remote Commander.

Displaying the on screen indications

- Press ⊕ once to display all the indications. They will disappear after some seconds.
- Press ⊕ twice to have the programme number and label stay on screen. Press twice again to make indications disappear.

Muting the sound.

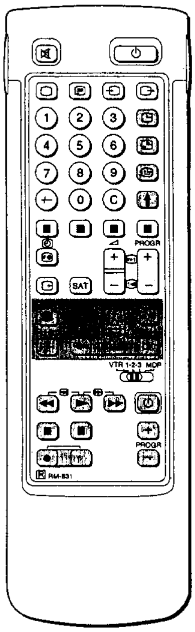
Press 🔇.
To resume normal sound, press 🔇 again.

Displaying the time

Press ⊚. This function is available only when teletext is broadcast.
To make the time display disappear, press ⊚ again.

Adjusting and Setting the TV Using the Menu

PICTURE CONTROL
SOUND CONTROL


VTR 1·2·3 MDP
PROGR
SAT
RM-831

Adjusting the Picture and Sound

Although the picture and sound are adjusted at the factory, you can adjust them to suit your own taste. In addition, you can change the aspect ratio of the TV display for wide screen effect, or set the resolution to obtain a higher quality picture. You can also select dual sound (bilingual) programmes when available or adjust the sound for listening with the headphones.

1 Press ● (for picture) or ♪ (for sound) on the Remote Commander.

   or

   Press MENU and select `Picture Control` or `Sound Control`, then press OK.
   The `PICTURE CONTROL` or `SOUND CONTROL` menu appears. (See Fig. 28 or Fig. 29)

2 Using △+ or ▽–, select the item you want to adjust and press OK.The selected item changes colour. (See Fig. 30)

3 Adjust the setting with △+ or ▽ – and press OK.
   The cursor appears beside the next item (at the left margin). (See Fig. 31)
   For the effect of each control, see the table below.

4 Repeat steps 2 and 3 to adjust other items.

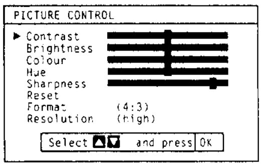

PICTURE CONTROL
▶ Contrast
Brightness
Colour
Hue
Sharpness
Reset
Format (4:3)
Resolution (high)
Select ▲▼ and press OK

Fig. 28.

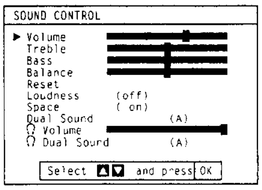

SOUND CONTROL
▶ Volume
Treble
Bass
Balance
Reset
Loudness (off)
Space (on)
Dual Sound (A)
Ω Volume
Ω Dual Sound (A)
Select ▲▼ and press OK

Fig. 29.

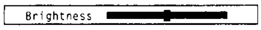

Brightness

Fig. 30.

Brightness
▶ Colour

Fig. 31.

If you have made a mistake:
Press ← to go back to the previous position.
To go back to the main menu:
Keep pressing ←.
To go back to the normal TV picture:
Press MENU.

Note:
HUE is only available for NTSC colour system and RESOLUTION does not work for SECAM colour system.

Note on LINE OUT:
The audio level and the dual sound mode output from the ⊖ jack on the rear correspond to the HEADPHONES VOLUME and DUAL SOUND settings.

When watching a video input source with stereo sound:
You can select DUAL SOUND to change the sound.

Effect of each control

PICTURE CONTROL	Effect	
Contrast	Less ——I—— More	
Brightness	Darker ——I—— Brighter	
Colour	Less ——I—— More	
Hue	Greenish ——I—— Reddish	
Sharpness	Softer ——I—— Sharper	
Reset	Resets picture to the factory preset levels.	
Format	4 : 3 : Normal	16 : 9 : Wide screen effect
Resolution	Normal	high : Obtain a higher quality picture

SOUND CONTROL	Effect	
Volume	Less —I— More	
Treble	Less —I— More	
Bass	Less —I— More	
Balance	More left —I— More right	
Reset	Resets sound to the factory preset levels.	
Loudness	off : Normal	on : When listening to low volume sound.
Space	off : Normal	on : Obtain acoustic sound effect.
Dual Sound	A : left channel	B : right channel stereo mono The selected mode of the A-CD-B indicator on the TV lights up. (for NICAM broadcasts see next page)
Headphones:		
Ω Volume	Less —I— More	
Ω Dual Sound	A : left channel	B : right channel STEREO MONO

*Selecting Nicam Broadcasts**

This Sony TV has been designed to select Nicam broadcasts when available. Whenever a Nicam broadcast is received, "NICAM" appears briefly on the screen. When the Nicam programme ends, or you switch channels to one without Nicam, the A-CD-B indicators, on the TV will switch off.

Nicam programmes can be broadcast in two ways. You may select the sound you want to hear in either of these by first following the instructions explained on page 16.

Service Being Broadcast	Action	Effect	Indication on the TV A-CD-B	
Stereo	Press	Stereo Nicam (Mono 2-Channel)	▬	▬
	△+ or ▽−	mono	▭	▭
Press △+ or ▽− again to return to stereo Nicam (mono 2-channel)				
Bilingual	press	Channel A Nicam	▬	▭
	△+ or ▽−	Channel B Nicam	▭	▬
		mono	▭	▭
Press △+ or ▽− again to return to channel A Nicam				

* Depending on availability of service.

PROGRAMME TABLE

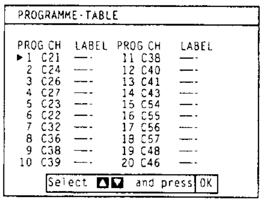
To go back to the normal TV picture:
Press MENU.

Using the Programme Table

On this table, you can see which channel is preset to which programme position. You can also select programmes using this table.

1 From the main menu, select `Programme Table` with △+ or ▽− and press OK.
The `PROGRAMME TABLE` menu appears. (See Fig. 32)
To scroll to higher programme numbers, press ▽−.

2 To select a programme using this menu select the programme number with △+ or ▽− and press OK.
The selected programme appears.



```
PROGRAMME-TABLE

PROG CH   LABEL  PROG CH   LABEL
▶ 1 C21   ---      11 C38  ---
  2 C24   ---      12 C40  ---
  3 C26   ---      13 C41  ---
  4 C27   ---      14 C43  ---
  5 C23   ---      15 C54  ---
  6 C22   ---      16 C55  ---
  7 C32   ---      17 C56  ---
  8 C36   ---      18 C57  ---
  9 C38   ---      19 C48  ---
 10 C39   ---      20 C46  ---
      Select ▲▼  and press OK
```

Fig. 32.

TIMER

To switch off the timer:
Select "OFF" in step 3.

To check the remaining time:
Press ⊙.

Using the Sleep Timer

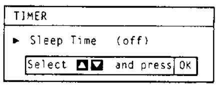
You can select a time period after which the TV automatically switches into standby mode.

1 From the main menu, select `Timer` with △+ or ▽− and press OK.
The `TIMER` menu appears. (See Fig. 33.)

2 Press OK.
The time period option changes colour.

3 Select the time period with △+ or ▽−.
The time period (in minutes) changes as follows:
10→20→30→40→50→60→70→80→90
↑———— OFF ————┘

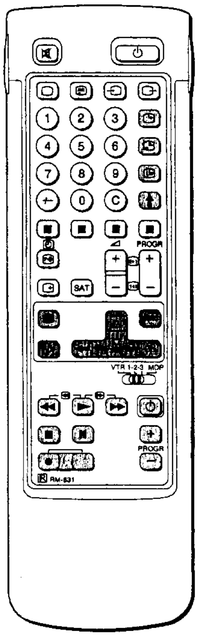
4 After selecting the time period, press OK.
The cursor moves back to the left margin and the timer starts counting.
One minute before the TV switches into standby mode, a message is displayed on the screen.



```
TIMER

▶ Sleep Time   (off)
  Select ▲▼  and press OK
```

Fig. 33.

Teletext



Note:
Teletext errors may occur if the broadcasting signals are weak.

With the simple side of the Remote Commander:
You can switch teletext on and off, operate Fastext, and directly select page numbers.

TV stations broadcast an information service called Teletext via the TV channels. Teletext service allows you to receive various information pages such as weather reports or news at any time you want. For advanced teletext operation, use the buttons on the Full-Function side of the Remote Commander.

Direct Access Functions

Switching Teletext on and off

1 Select the TV channel which carries the teletext broadcast you want to watch.

2 Press ⊜ to switch on teletext.
A teletext page will be displayed (usually the index page).If there is no teletext broadcast, P100 is displayed on the information line at the top of the screen.

To switch teletext off
Press ▢.

Selecting a teletext page

With direct page selection

Use the number buttons to input the three digits of the chosen page number.
If you have made a mistake, type in any three digits. Then re-enter the correct page number. If the page counter keeps searching, the page number might not be available.

With page-catching

1 Select a teletext page with a page overview (e.g. index page).

2 Press OK. Using △+ or ▽–, select the desired page. "Page Catching" will be displayed on the information line. Press OK. The requested page will appear in a few seconds.

Accessing next or preceding page

Press ⊞ (PAGE +) or ⊟ (PAGE –).
The next or preceding page appears.

Superimposing the teletext display on the TV programme

- Press ⊜ once in teletext mode or twice in TV mode.
- Press ⊜ again to resume normal teletext reception.

Preventing a teletext page from being updated

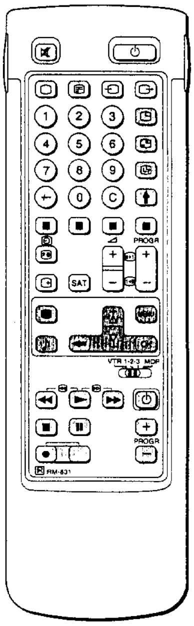
- Press ⊕ (HOLD). The HOLD symbol "⊕" is displayed on the information line.
- Press ⊜ to resume normal teletext reception.

Using Fastext

Note:
Fastext operation is only possible, if the TV station broadcasts Fastext signals.

With Fastext you can access pages with one key stroke.When a Fastext page is broadcast, a colour-coded menu will appear at the bottom of the screen. The colours of this menu correspond to the red, green, yellow and blue buttons on the Remote Commander.
Press the corresponding coloured button on the Remote Commander which corresponds to the colour-coded menu. The page will be displayed after some seconds.

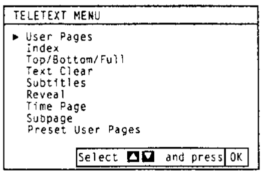
Using the Teletext Menu



This TV is provided with a menu-guided teletext system. When teletext is switched on, you can use the menu buttons to operate the teletext menu. Select the teletext menu functions in the following way:

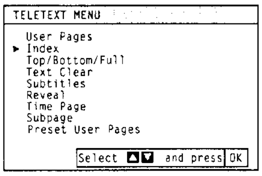
1 Press MENU. The menu will be superimposed on the teletext display. (See Fig. 34)

2 Using △+ or ▽–, select the teletext function you want and press OK. (See Fig. 35)



TELETEXT MENU
▸ User Pages
Index
Top/Bottom/Full
Text Clear
Subtitles
Reveal
Time Page
Subpage
Preset User Pages
Select ▲▼ and press OK

Fig. 34.



TELETEXT MENU
User Pages
▸ Index
Top/Bottom/Full
Text Clear
Subtitles
Reveal
Time Page
Subpage
Preset User Pages
Select ▲▼ and press OK

Fig. 35.

USER PAGES/PRESET USER PAGES

See page 19 for information about presetting and operating the user pages.

INDEX

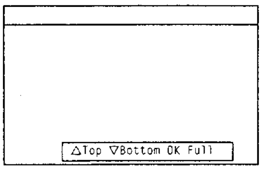
The index will give you an overview of the contents of the teletext and the page numbers.

TOP/BOTTOM/FULL

For convenient reading of a teletext page, you can enlarge the teletext display with the ability to scroll up and down the screen. After having selected the function, an information line `Top/Bottom/Full` will be displayed. (See Fig. 36)

Press △+ for `Top` to enlarge the upper half. For `Bottom` keep pressing ▽–, to enlarge the lower half. Press OK for `Full` to resume the normal size.

Press ⊜ to resume normal teletext reception.



△Top ▽Bottom OK Full

Fig. 36.

Note:
Some of the features may not be available depending on the Teletext service.

TEXT CLEAR

After having selected the function, you can watch a TV programme while waiting for a requested teletext page to be captured (The symbol changes colour) (see Fig. 37).

Press ⊜ to view the requested page.

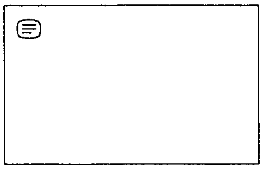


Fig. 37.

SUBTITLES

Your teletext service will inform you if a TV programme is subtitled. After having selected the function the subtitles will be displayed.

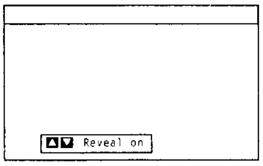
Note on Subtitles:
If the subtitles are not broadcast on page 888, please select the subtitle page using the number buttons.

REVEAL

Sometimes pages contain concealed information, such as answers to a quiz. The reveal option lets you disclose the information. After having selected the function, an information line "REVEAL ON/OFF" will be displayed. (See Fig. 38)

Using △+ or ▽–, select ON to reveal the information or OFF to conceal it again.

Press ⊜ to resume normal teletext reception.



▲▼ Reveal on

Fig. 38.

TIME PAGE

This function is not available.

SUBPAGE

You may want to select a particular teletext page from several subpages which are rotated automatically. After having selected the function, an information line will be displayed at the bottom of the screen.

To select the desired subpage, enter four digits using PROGR+/– or the number buttons. (e.g. enter 0002 for the second page of a sequence).

To cancel the request:
Select "Subpage" and press OK.

If two broadcasting stations use the same Teletext:
You can preset one bank to 2 different programme positions.

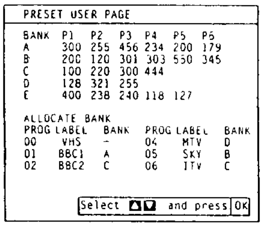
User Page Bank System

You can store up to 30 pages in the "Teletext page bank system". In this way you have quick access to the pages you watch frequently.

Storing pages

There are 5 "banks" (A to E) for 5 teletext stations. In each bank you can store 6 preferred pages (P1 to P6).

1. Press ⊜ (if Teletext is not on already) and MENU to show the TELETEXT MENU display.
2. Select `Preset User` Pages with △+ or ▽– and press OK.
3. Select the desired bank with △+ or ▽– and press OK. The cursor will go to the first position (P1) of the preferred pages.
4. Input the three digits of your first preferred page with the number buttons and press OK.
   The cursor will go to the second position.
5. Repeat step 4 for the other 5 page numbers you want to preset. If you do not want to preset all 6 page numbers available, press OK without inserting any number. After having finished the presetting press OK repeatedly until the cursor appears besides the next bank at the left margin.
6. Select `Allocate Bank` with △+ or ▽– and press OK.
7. Select the programme position for which you want to preset pages with △+ or ▽– and press OK. (See Fig. 39)
8. Select the desired bank with △+ or ▽– (Banks A to E are available) and press OK.
9. Repeat steps 3 to 8 for the other 4 banks available.

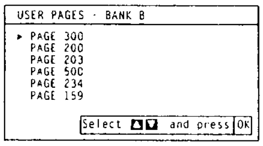


```
PRESET USER PAGE

BANK  P1   P2   P3   P4   P5   P6
A     300  255  456  234  200  179
B     200  120  301  303  550  345
C     100  220  300  444
D     128  321  255
E     400  238  240  118  127

ALLOCATE BANK
PROG LABEL  BANK    PROG LABEL  BANK
00   VHS    -       04   MTV    D
01   BBC1   A       05   SKY    B
02   BBC2   C       06   ITV    C

            Select ▲▼ and press OK
```

Fig. 39.

Displaying User Pages

1. Select MENU.
2. Select `User Pages` with △+ or ▽– and press OK.
   A table of the stored preferred pages will be displayed. (See Fig. 40)
3. Select the desired page with △+ or ▽– and press OK. The page will be displayed after some seconds.



```
USER PAGES - BANK B

▸ PAGE 300
  PAGE 200
  PAGE 203
  PAGE 500
  PAGE 234
  PAGE 159

            Select ▲▼ and press OK
```

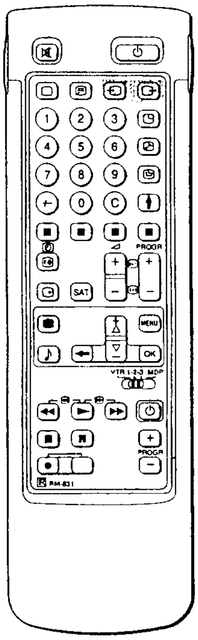
Fig. 40.

Connecting and Operating Optional Equipment

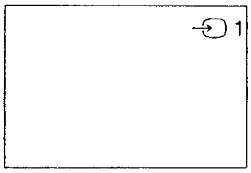
Selecting input and output

This section explains how to view the video input picture (of the video source connected to your TV), and how to select the output signal using direct access buttons or the menu system.

Selecting input with PROGR +/– or number buttons:
You can preset video input sources to the programme positions so that you can select them with PROGR +/– or number buttons.
For details, see "Preset channels manually" on page 8.



Selecting input



Press ⇥ repeatedly to select the input source.

The symbol of the selected input source will appear.

To go back to the normal TV picture

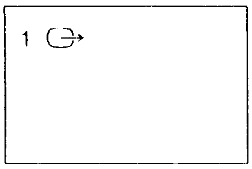
Press ○.

Input modes

Symbol	Input signal
⇥ 1	Audio/video input through the ⇥Ⓢ 1 connector
⇥	RGB input through the ⇥Ⓢ 1 connector
⇥ 2	Audio/video input through the ↦2/⇥Ⓢ2 connector
⇥Ⓢ 2	S video input through the ↦2/⇥Ⓢ2 or ⇥Ⓢ2 connector
⇥ 3	Audio/video input through ⇥3 and ⇥3 on the front
⇥Ⓢ 3	S video input through the ⇥Ⓢ3 connectors on the front (4-pin connector)

You can also select the input mode using the P→⊿→⇥ and –/+ buttons on the TV. In this case, first select ⇥, and then press –/+ buttons to select the input.

Selecting the output



The ↦2/⇥Ⓢ2 connector outputs the source input from the other connectors.

Press ↦ repeatedly to select the output.
The symbol of the selected output source appears.

Output modes

Symbol	↦2/⇥Ⓢ2 connector outputs
1 ↦	The audio/video signal from the ⇥Ⓢ 1 connector
2 ↦	The audio/video signal from the ↦2/⇥Ⓢ2 connector
2 Ⓢ↦	The audio/S video signal from the ↦2/⇥Ⓢ connector
3 ↦	The audio/video signal from the ⇥3, ⇥3 connectors
3 Ⓢ↦	The audio/S video signal from the ⇥Ⓢ3, ⇥3 connectors
TV↦	The audio/video signal from the ⏉ aerial terminal

Note on LINE OUT:
The audio level and the dual sound mode output from the ↦ jack on the rear correspond to the HEADPHONES VOLUME and DUAL SOUND settings.

Checking and selecting the input and output sources using the menu

You can display the menu to see which input sources are selected for the TV screen, and which output source is selected. You can also select them on the menu display.

1 Select `Video Connection` with △+ or ▽− and press OK. The `VIDEO CONNECTION` menu appears. (See Fig. 41)
You can see which source is selected for the TV and for the output. If you want to select the input and output on this menu, go on to the next step.

2 Select TV Screen (input source for the TV screen), or output (output source) with △+ or ▽− and press OK. One of the source items changes colour. (See Fig. 42)

3 Select the desired source with △+ or ▽−.
(See Fig. 43)
For details about each source, see the table on page 22.

4 Press OK.
The selected source is confirmed, and the cursor appears.
(See Fig. 44)

5 Repeat steps 2 to 4 to select the source for other inputs or outputs.

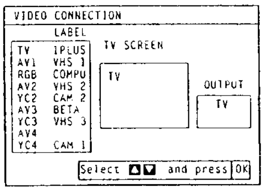

VIDEO CONNECTION
LABEL
TV 1PLUS
AV1 VHS 1
RGB COMPU
AV2 VHS 2
YC2 CAM 2
AV3 BETA
YC3 VHS 3
AV4
YC4 CAM 1
TV SCREEN
TV
OUTPUT
TV
Select ▲▼ and press OK

Fig. 41.

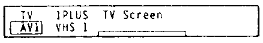

TV 1PLUS TV Screen
AV1 VHS 1

Fig. 42.

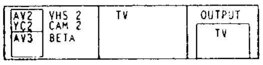

AV2 VHS 2
YC2 CAM 2
AV3 BETA
TV
OUTPUT
TV

Fig. 43.

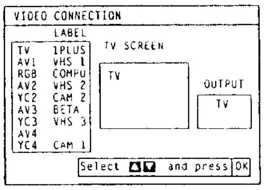

VIDEO CONNECTION
LABEL
TV 1PLUS
AV1 VHS 1
RGB COMPU
AV2 VHS 2
YC2 CAM 2
AV3 BETA
YC3 VHS 3
AV4
YC4 CAM 1
TV SCREEN
TV
OUTPUT
TV
Select ▲▼ and press OK

Fig. 44.

Remote Control of Other Sony Equipment

You can use the TV Remote Commander to control most Sony remote-controlled video equipment such as: Beta, 8mm or VHS VTRs or video disc players.

Tuning the Remote Commander to the equipment

1 Set the VTR 1/2/3 MDP selector according to the equipment you want to control:

VTR 1: Beta or ED Beta VTR

VTR 2: 8mm VTR

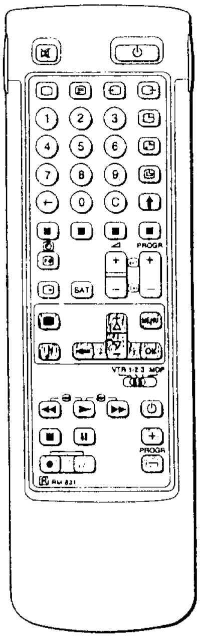
VTR 3: VHS VTR

MDP: Video disc player

2 Use the buttons indicated in the illustration to operate the additional equipment.

If your video equipment is furnished with a COMMAND MODE selector: set this selector to the same position as the VTR 1/2/3 MDP selector on the TV Remote Commander.

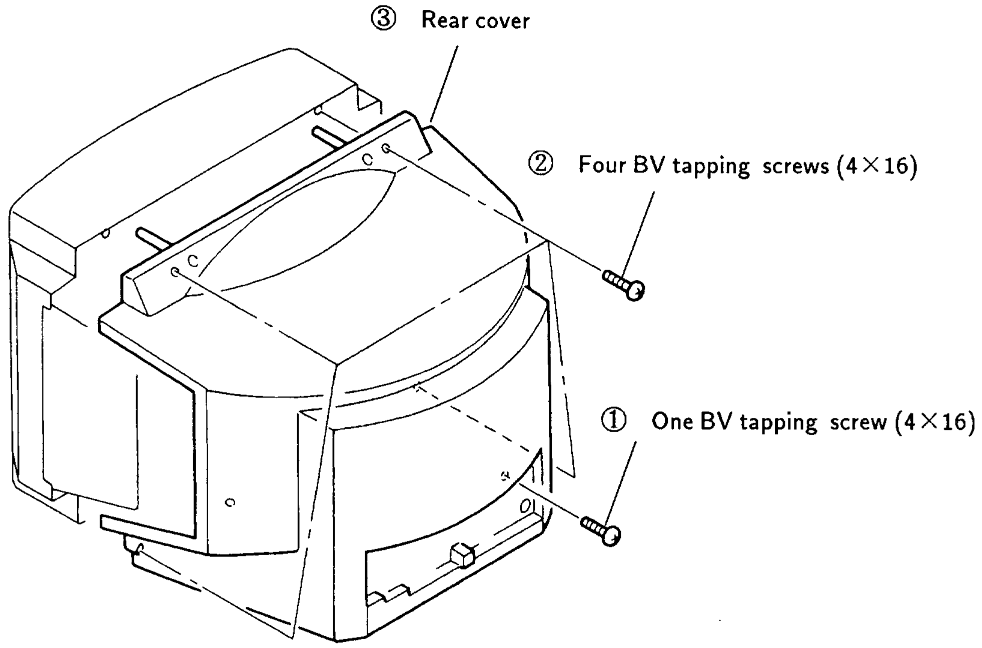
If the equipment does not have a certain function, the corresponding button on the Remote Commander will not operate.


1
2
3
4
5
6
7
8
9
0
C
SAT
PROGR
VTR 1·2·3 MDP
PROGR

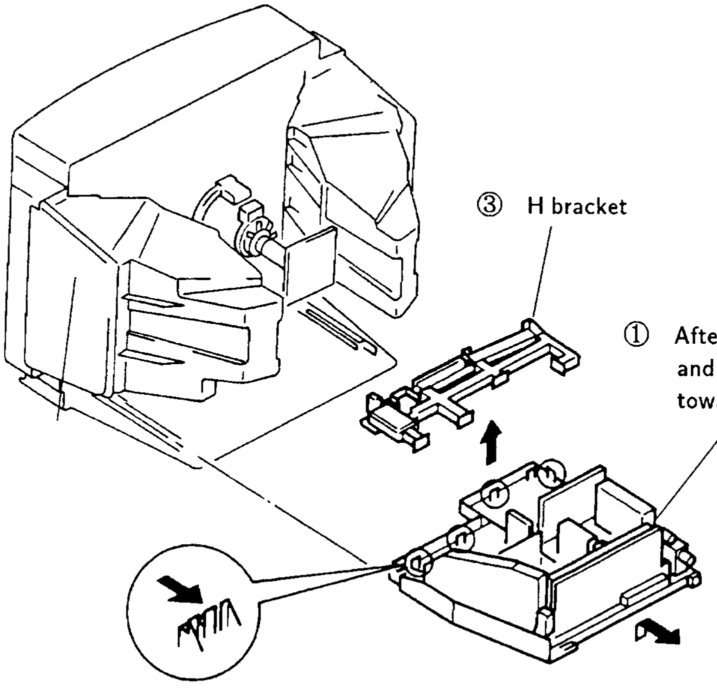
When recording
When you use the ● (record) button, make sure to press this button and the one to the right of it simultaneously.

SECTION 2
DISASSEMBLY

2-1. REAR COVER REMOVAL


③ Rear cover
② Four BV tapping screws (4×16)
① One BV tapping screw (4×16)

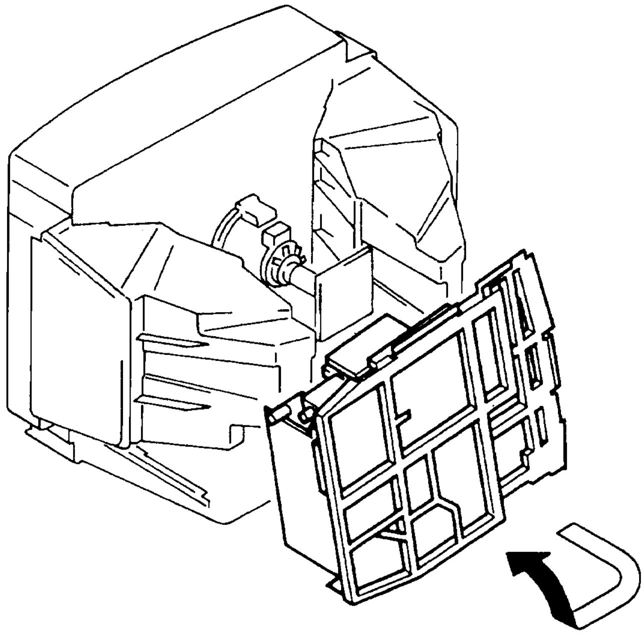
2-2. CHASSIS ASSY REMOVAL



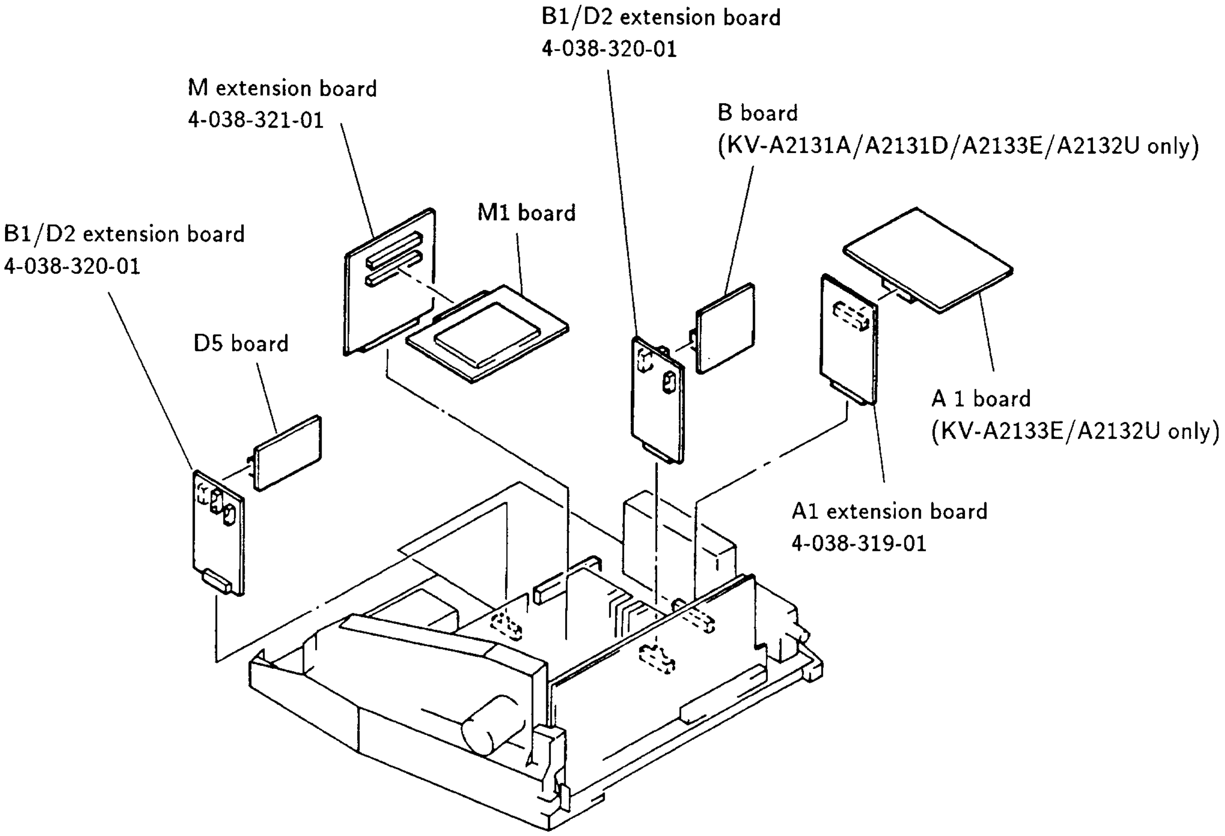
① After the assembly of the main chassis, lift and pull out the rear part of the main chassis toward the rear.

② Push the four claws of the main chassis in the direction of the arrow and remove the H bracket upwards.

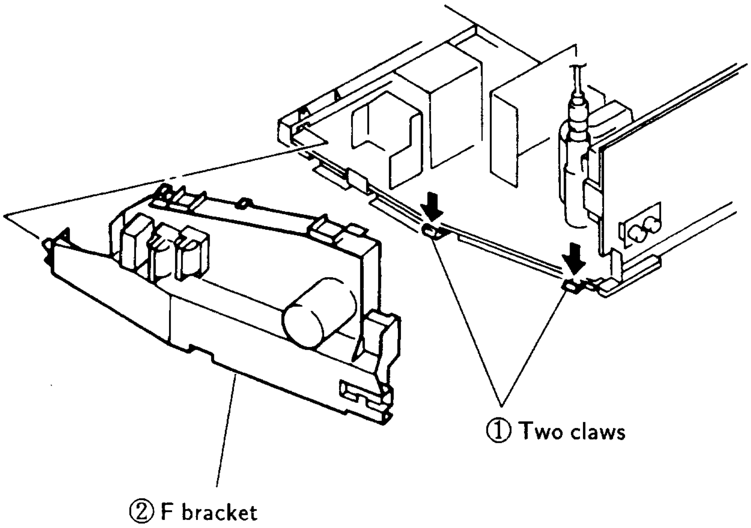
2-3. SERVICE POSITION



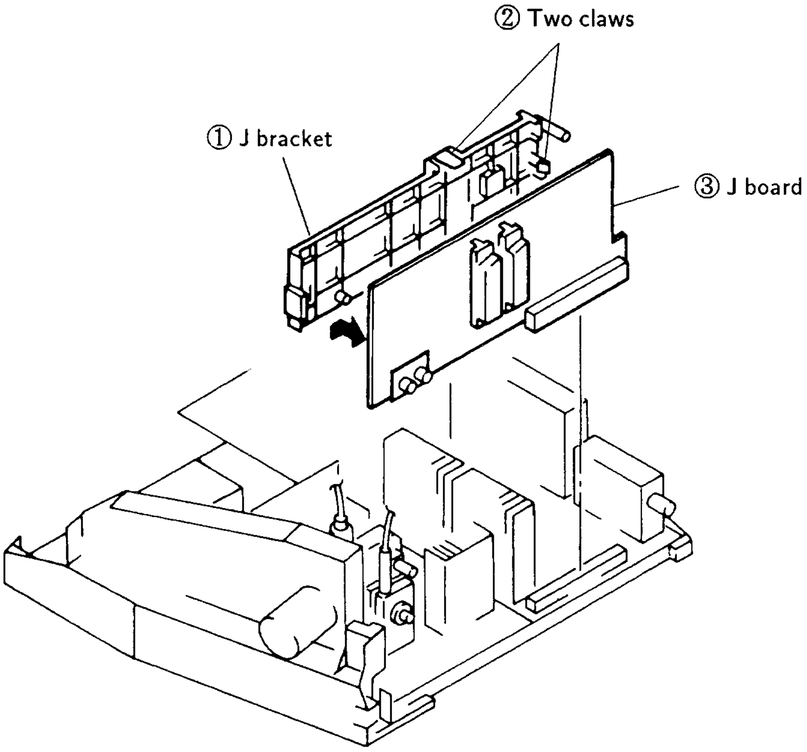
2-4. EXTENSION BOARD


B1/D2 extension board
4-038-320-01
M extension board
4-038-321-01
B board
(KV-A2131A/A2131D/A2133E/A2132U only)
M1 board
B1/D2 extension board
4-038-320-01
D5 board
A 1 board
(KV-A2133E/A2132U only)
A1 extension board
4-038-319-01

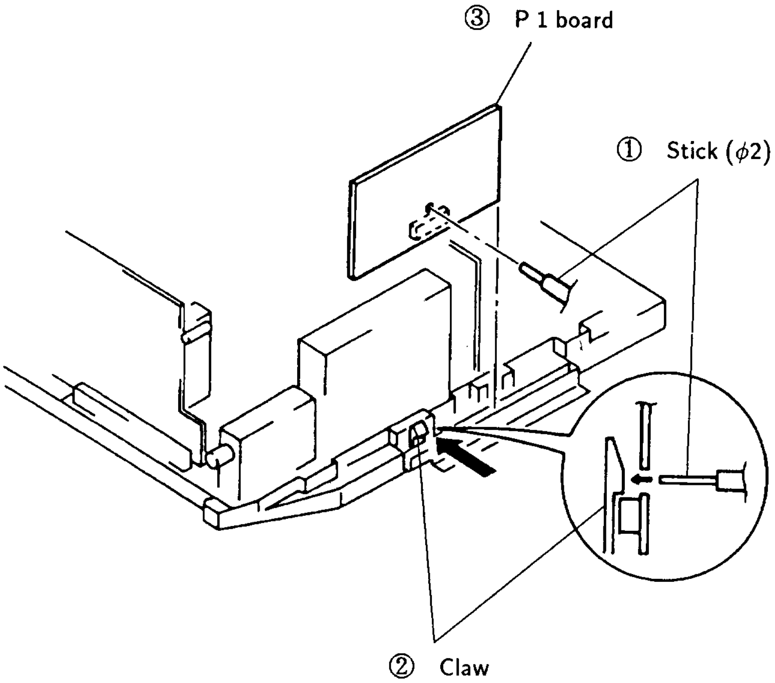
2-5. F BRACKET REMOVAL


① Two claws
② F bracket

2-6. J BOARD REMOVAL

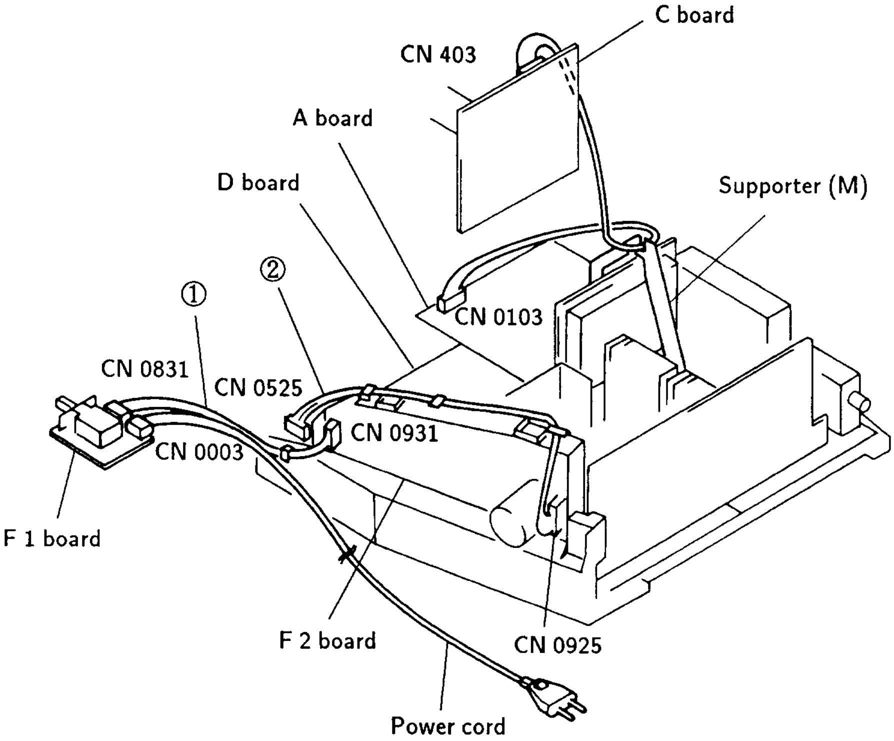

② Two claws
① J bracket
③ J board

2-7. P1 BOARD REMOVAL (KV-A2131B only)

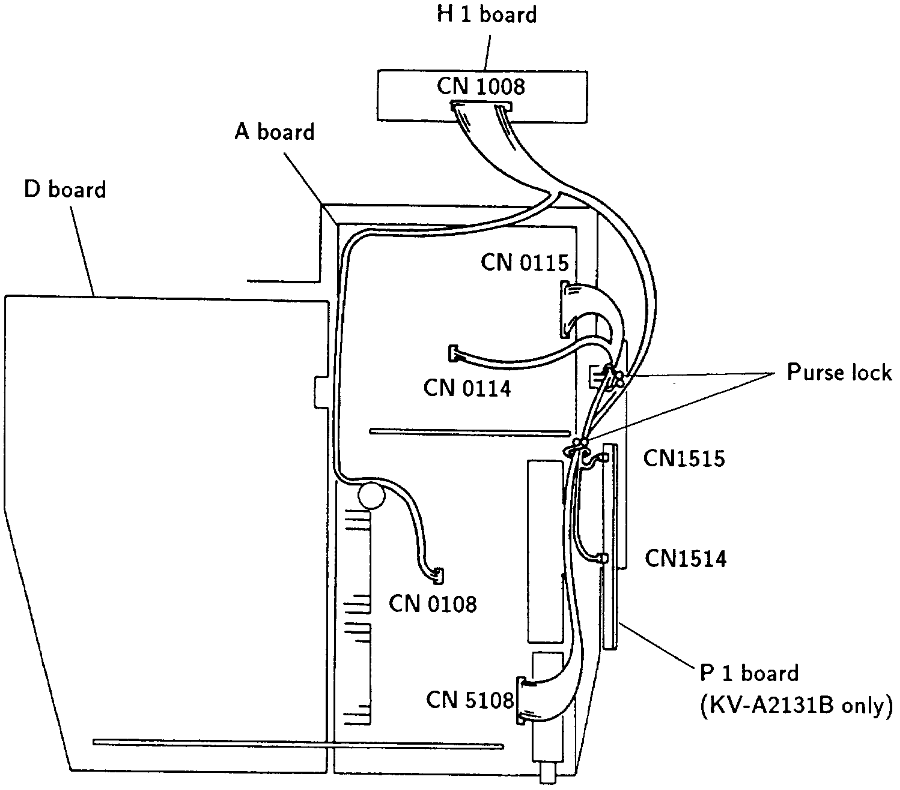

③ P 1 board
① Stick (ϕ2)
② Claw

2-8-1. WIRE DRESSING

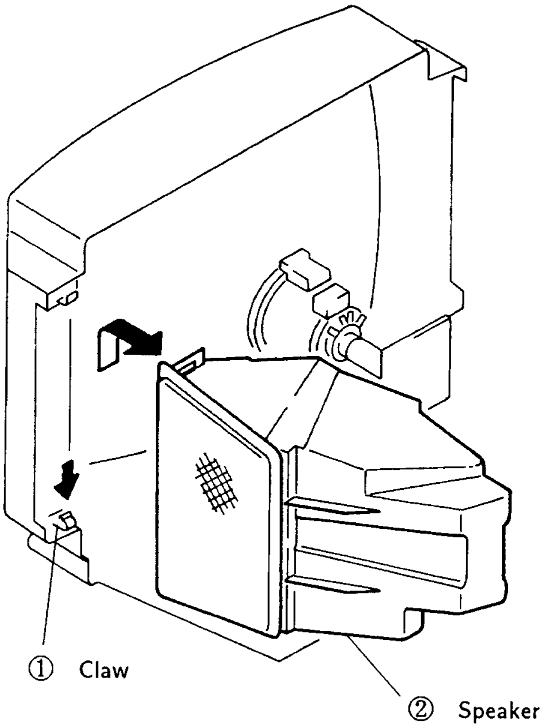
※ Keep distance between ① and ②


C board
CN 403
A board
D board
Supporter (M)
①
②
CN 0103
CN 0831
CN 0525
CN 0931
CN 0003
F 1 board
F 2 board
CN 0925
Power cord

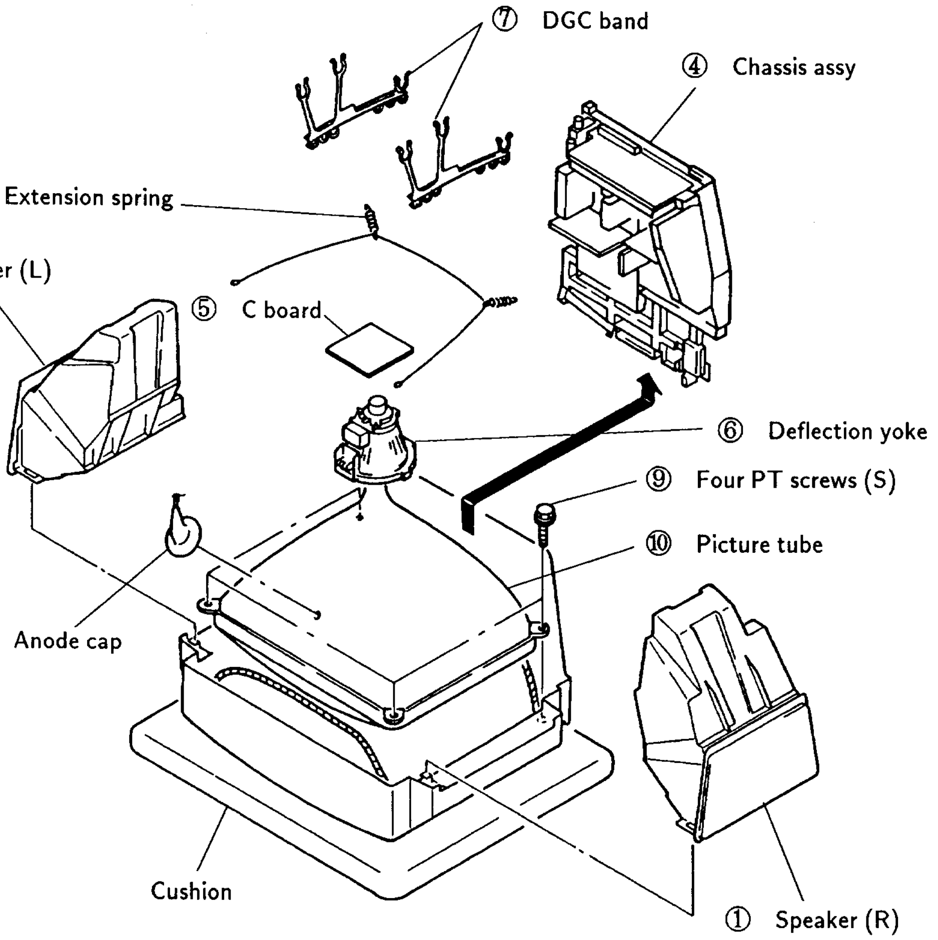
2-8-2. WIRE DRESSING


H 1 board
CN 1008
A board
D board
CN 0115
CN 0114
Purse lock
CN1515
CN1514
CN 0108
P 1 board
(KV-A2131B only)
CN 5108

2-9. SPEAKER REMOVAL


① Claw
② Speaker

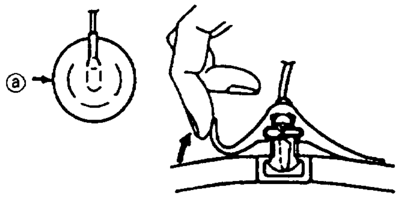
2-10. PICTURE TUBE REMOVAL


⑦ DGC band
④ Chassis assy
⑧ Extension spring
② Speaker (L)
⑤ C board
⑥ Deflection yoke
⑨ Four PT screws (S)
⑩ Picture tube
③ Anode cap
Cushion
① Speaker (R)

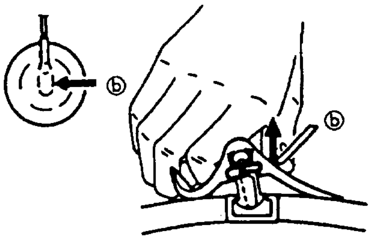
• REMOVAL OF ANODE-CAP

NOTE : Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.

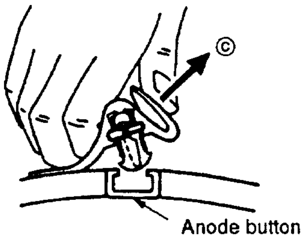
• REMOVING PROCEDURES



① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ.



② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ.


ⓒ
Anode button

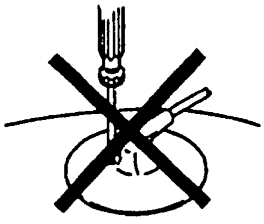
③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ⓒ.

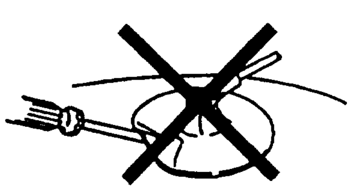
• HOW TO HANDLE AN ANODE-CAP

① Don't hurt the surface of anode-caps with sharp shaped material!

② Don't press the rubber hardly not to hurt inside of anode-caps!
A material fitting called as shatter-hook terminal is built in the rubber.

③ Don't turn the foot of rubber over hardly!
The shatter-hook terminal will stick out or hurt the rubber.





SECTION 3
SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

The controls and switch below should be set as follows unless otherwise noted :

◑ CONTRASTcontrol········ 80%(or Normal by commander)
☼ BRIGHTNESS control····· 50%

Perform the adjustments in order as follows:

1. Beam Landing
2. Convergence
3. Focus
4. Screen (G 2) and White Balance

Note: Test Equipment Required.

1. Color bar/Pattern Generator
2. Degausser
3. DC Power Supply
4. Digital multimeter
5. Oscilloscope

Preparation:

- Set the side of the unit with the PICTUE TUBE so that it faces east or west in order to reduce the influence of external magnetic force.
- Turn the power switch for the unit ON and erase the magnetic force using a degausser..

3-1. BEAM LANDING

Demagnetize with a degausser

1. Input a raster signal with the pattern generator.
   CONTRAST } normal
   BRIGHTNESS }
2. Turn the raster signal of the pattern generator to red.
3. Move the deflection yoke backward, and adjust with the purity control so that red is in the center and blue and green are at the sides evenly. (Fig.3-1 - 3-3)
4. Move the deflection yoke forward, and adjust so that the entire screen becomes red. (Fig.3-1)
5. Switch over the raster signal to blue and blue and confirm the condition.
6. When the position of the deflection yoke is determined,tighten it with a deflection yoke mounting screw.
7. When landing at the corner is not right, adjust by using the disk magnets. (Fig.3-4)

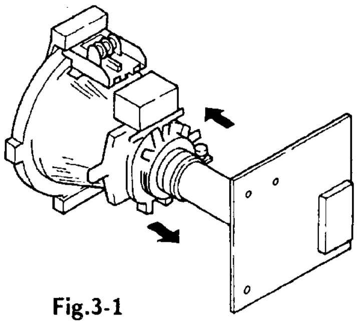
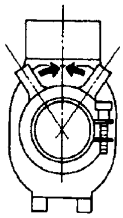


Fig.3-1



Purity control

Fig.3-2

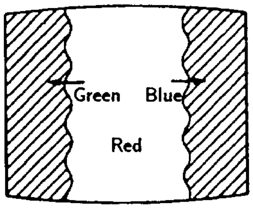
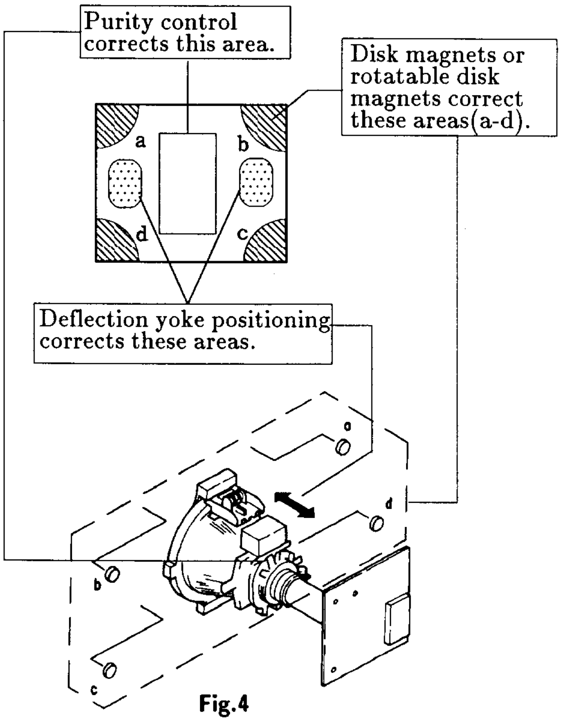


Fig.3-3



Purity control corrects this area.

Disk magnets or rotatable disk magnets correct these areas(a-d).

Deflection yoke positioning corrects these areas.

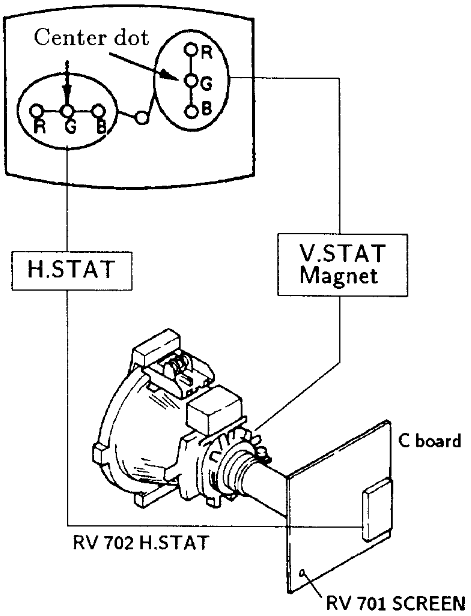
Fig.4

3-2. CONVERGENCE

Preparation:

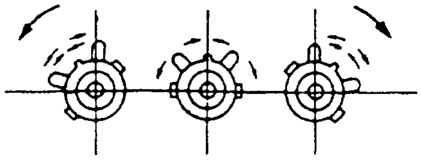
- Before starting, perform FOCUS, H.SIZE, and V. SIZE adjustments.
- Set BRIGHTNESS control to minimum.
- Feed in the dot pattern.

(1) Horizontal and Vertical Static Convergence

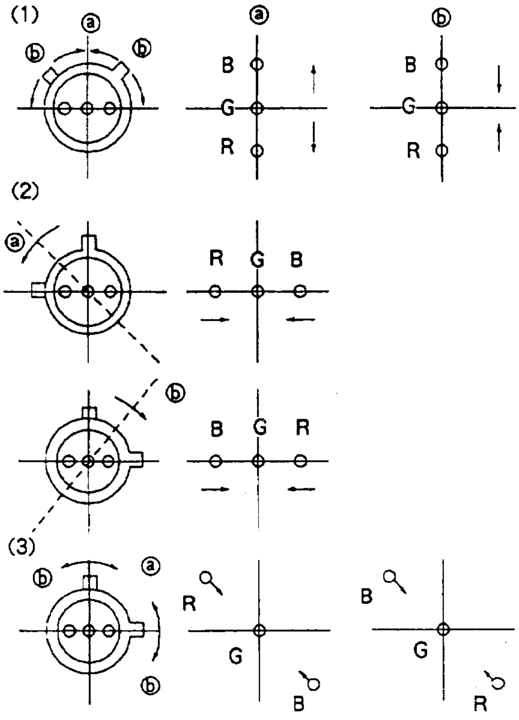


1. Adjust H.STAT VR to converge red, green and blue dots the in center of the screen.(Horizontal movement)
2. Adjust V. STAT magnet to converge red, green and blue dots in the center of the screen. (Vertical movement)
3. If the red, green and blue dots do not converge on the center of screen with H.STAT VR, perform horizontal convergence adjustment using H.STAT VR and V.STAT magnet as shown below. (In this case, H.STAT VR and V.STAT magnet effect each other.)

- Tilt the V.STAT magnet and adjust static convergence to open or close the V.STAT magnet.



4.When the V.STAT magnet is moved in the direction of arrow ⓐ and ⓑ, red, green and blue dots move as shown below.

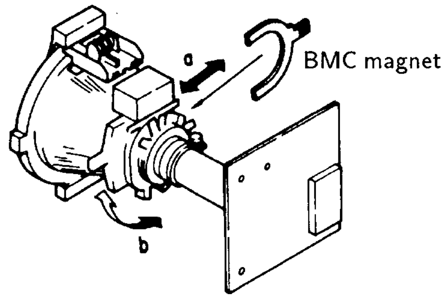


If the red and blue dot do not converge with green dots, perform following steps.

Move BMC magnet (a) to correct insufficient H.static convergence.

Rotate BMC magnet (b) to correct insufficient V.static convergence.

In either case, repeat Beam Landing Adjustment.

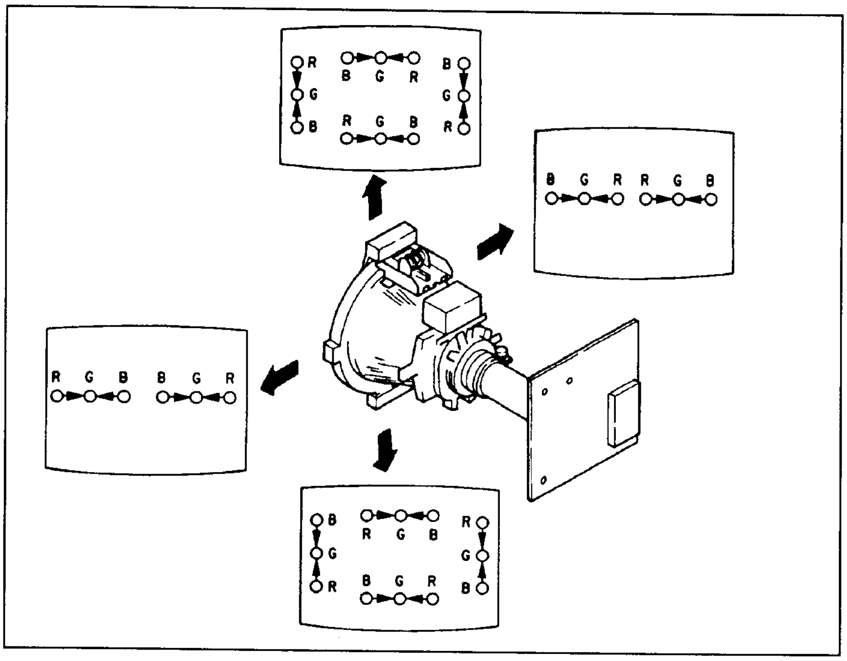


(2)Dynamic Convergence Adjustment

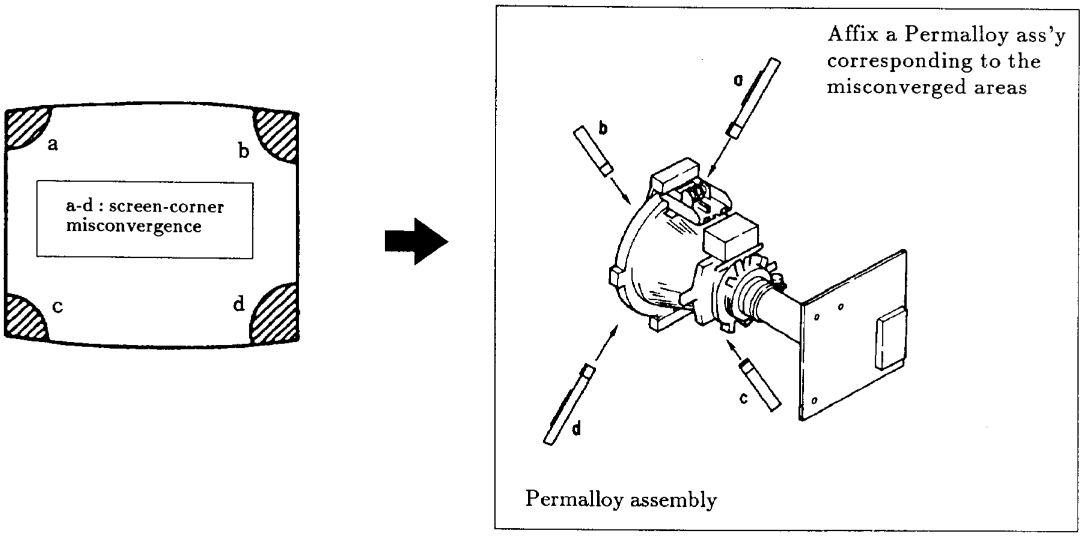
Preparation:

● Before starting perform Horizontal and Vertical static convergence Adjustment.

1. Slightly loosen deflection yoke screw.
2. Remove deflection yoke spacers.
3. Move the deflection yoke for best convergenceas shown below.
4. Tighten the deflection yoke screw.
5. Install the deflection yoke spacers.


R G B
B G R
R G B
B G R
B G R R G B
R G B B G R
B R G B R G
G G
B R
R G B
B G R

(3) Screen-corner Convergence

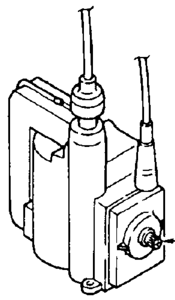

a
b
c
d
a-d : screen-corner misconvergence
a
b
c
d

Affix a Permalloy ass'y corresponding to the misconverged areas

Permalloy assembly

3-3. FOCUS

Adjust FOCUS so that the whole screen is in best focus.



3-4. WHITE BALANCE

Screen G2 Setting

1. Input the dot signal from the pattern generator.
2. Set the picture brightness control to its lowest level.
3. Apply 180V DC to the R,G, and B cathodes with an external power supply.
4. While watching the picture, adjust G 2 control RV 701 (Screen) to the point just before the return lines disappear.

White balance adjustment

1. Receive all-white signal.
2. Enter into service mode. (Refer to the section 4 "Electrical Adjustment" to how to enter service mode.)
3. Select CXA 1587 on menu.

09	SUB BRIGHT	ADJ.
10	SUB HUE	7
11	VM LEVEL	2
12	NR LEVEL	0
13	ABL MODE	0
14	G-DRIVE	ADJ.
15	B-DRIVE	ADJ.
16	G-AUTO CUT OFF	ADJ.
17	B-AUTO CUT OFF	ADJ.
18	R-MANUAL CUT OFF	ADJ.
19	G-MANUAL CUT OFF	ADJ.
20	B-MANUAL CUT OFF	ADJ.

4. Set picture to MAX.
5. Adjust G-DRIVE B-DRIVE with ▲, ▼ buttons so that the white balance becomes optimum.
6. Press OK button to write the data for each item.
7. Set picture to MIN.
8. Adjust G-AUTO CUT OFF, B-AUTO CUT OFF, R-MANUAL CUT OFF, G-MANUAL CUT OFF and B-MANUAL CUT OFF with ▲, ▼ buttons so that the white balance becomes optimum.
9. Press OK button to write the data for each item.

SECTION 4

CIRCUIT ADJUSTMENTS

4-1. ELECTRICAL ADJUSTMENTS

Service adjustment to this model can be performed with the supplied remote commander RM-831.

HOW TO ENTER INTO SERVICE MODE

1. Turn on the main power switch of the set while pressing any two buttons on the front panel.

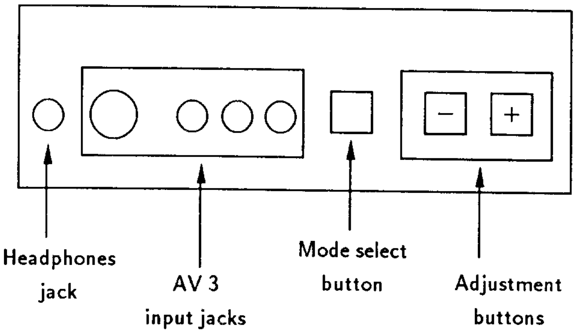


Fig.4-1

2. "TT" will appear on the upper right corner of the screen.

Command operation in service mode

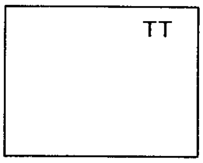


Fig.4-2

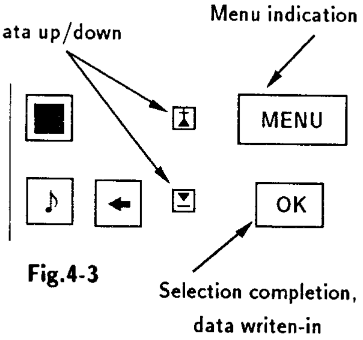
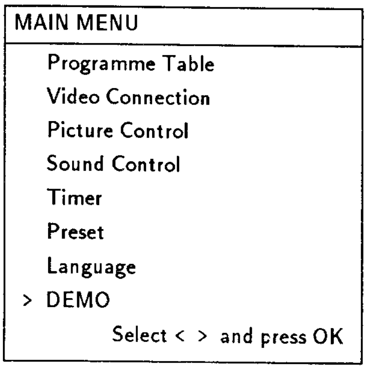

Item selection, data up/down
Menu indication
MENU
OK
Selection completion, data writen-in

Fig.4-3

3. Press the MENU button of the commander to get the menu on screen.

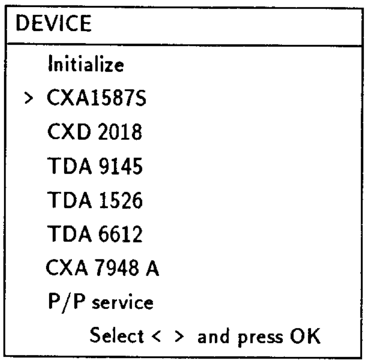


MAIN MENU

Programme Table
Video Connection
Picture Control
Sound Control
Timer
Preset
Language
> DEMO
Select < > and press OK

Fig.4-4

4. Press the ▲ and ▼ buttons of the commander and move > to DEMO.
5. Press OK button to proceed to the next menu.
6. The menu of fig.4-5 will appear on screen. Select DEVICE corresponding to the adjustment item from the table on next page.



DEVICE

Initialize
> CXA1587S
CXD 2018
TDA 9145
TDA 1526
TDA 6612
CXA 7948 A
P/P service
Select < > and press OK

Fig.4-5

7. If adjustment item is CXA1587S, press the ▼ button and move > to CXA1587S.

CXA 1587 S

	Item No.	Adjustment item	Data Amout
	01	PICTURE	3
	02	COLOR	1
	03	BRIGHT	1
	04	HUE	1
	05	SHARPNESS	7
	06	RGB PICTURE	3
	07	SUB CONTRAST	ADJ.
	08	SUB COLOR	ADJ.
>	09	SUB BRIGHT	ADJ.
	10	SUB HUE	7
	11	VM LEVEL	2
	12	NR LEVEL	0
	13	ABL MODE	• 0
	14	G-DRIVE	ADJ.
	15	B-DRIVE	ADJ.

8. Press OK button to get the next selection menu.
9. Press ▼ button and move > to the adjustment item and press OK button.
10. Press the ▲ and ▼ buttons to change the data in order to comply each standard.
11. Press OK button to write data.
12. Turn off the power to quit service mode when completing the adjustment.

CXA 1587 S

01	PICTURE	53
02	COLOR	31
03	BRIGHT	31
04	HUE	31
05	SHARPNESS	7
06	RGB PICTURE	13
07	SUB CONTRAST	ADJ.
08	SUB COLOR	ADJ.
09	SUB BRIGHT	ADJ.
10	SUB HUE	7
11	VM LEVEL	2
12	NR LEVEL	0
13	ABL MODE	0
14	G-DRIVE	ADJ.
15	B-DRIVE	ADJ.
16	G-AUTO CUT OFF	ADJ.
17	B-AUTO CUT OFF	ADJ.
18	R-MANUAL CUT OFF	ADJ.
19	G-MANUAL CUT OFF	ADJ.
20	B-MANUAL CUT OFF	ADJ.
21	GAMMA LEVEL	0
22	DC TRANSFER RATIO	3
23	DINAMIC PICTURE	0
24	Y FILTER ADJ	ADJ.
25	Y DELAY TIME	15
26	Y DELAY SWITCH 1	0
27	Y DELAY SWITCH 2	1
28	SHARPNESS LIMIT	ON
29	ALL BLK	OFF
30	H SHIFT	31
31	DAC TEST	ON
32	PRE/OVER SHOOT	12
33	SHARPNESS FO	2
34	SUB SHARPNESS	3
35	R MUTE	OFF
36	G MUTE	OFF
37	B MUTE	OFF
38	AGING 1	OFF
39	AGING 2	OFF
40	AKB OFF	ON
41	INHIBIT RGB	OFF
42	FORCED RGB	OFF
43	V/2 V	OFF
44	AXIS	PAL
45	HUE SW	OFF
46	V EXTENTION	OFF
47	AFC 1	1
48	AFC 2	0
49	AFC OFF	ON
50	REF.POSITION	0

CXD 2018 Q

01	V SIZE	ADJ.
02	V SHIFT	ADJ.
03	S CORRECTION	ADJ.
04	V LINEARITY	ADJ.
05	H SIZE	ADJ.
06	PIN AMP	ADJ.
07	TILT	ADJ.
08	UPPER CORNER	ADJ.
09	LOWER CORNER	ADJ.
10	V BOW	ADJ.
11	ANGLE	ADJ.
12	HV COMP.V	13
13	HV COMP.H	8
14	FRAME SHIFT	OFF
15	FREE RUN 60 Hz	OFF
16	SYSTEM 60 Hz	OFF
17	ASPECT WIDE	OFF
18	DOUBLE SCAM	OFF
19	INTERLACE	ON
20	H SHIFT	32
21	N/S CORRECTION	ADJ.

Typical Value (OSD based)when receiving PAL Philips pattern.

TDA 6612	ADJ.
Stereo-Separation	(30)

Should be adjusted twice 4 : 3 and 16 : 9 mode.

Y FILTER ADJUSTMENT

1. Input PAL RED pattern.
2. Connect an oscilloscope to CN 0403 ① pin (R IN) on the C board.
3. Enter into service mode and press 3, 8.
4. Adjust data by △ or ▽ to minimize the chroma element of CN 0403 ① pin.

SUB BRIGHTNESS ADJUSTMENT

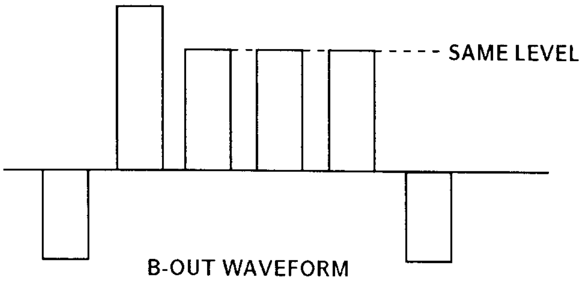
1. Input Phillips pattern.
2. Enter into service mode and press 23.
3. Adjust data so that 0-IRE of the grey scale and CUT -OFF 20-IRE glitter slightly.

SUB CONTRAST ADJUSTMENT

1. Input a video that contains small 100% area on the Black Back ground.
2. Enter into service mode and press 01 to have PIC max followed by 21.
3. Adjust data so that 2.5 Vp-p can be obtained at ① CN 0403 (R IN).

SUB COLOR ADJUSTMENT

1. Input PAL color bar.
2. Connect an oscilloscope to CN 0403 ③ pin (B IN) on the C board.
3. Enter into service mode and press 22 of CXA 1587 S, 8 SUB COLOR.
4. Adjust data so that the right sides of the waveform will be the same.



B-OUT WAVEFORM

STEREO-SEPARATION ADJUSTMENT

1. Input 1 kHz stereo signal to the L-ch and 400 Hz stereo signal to the R-ch.
2. Enter into service mode and press 19.
3. Adjust data so that sound does not leak to the R-ch and the L-ch.

DRIVE AND CUT OFF

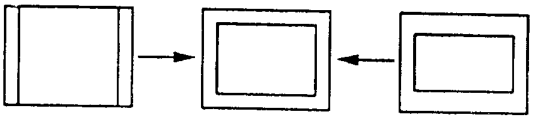
See direct test mode list attached and refer to sub brightness or such for adjustment method.

DEFLECTION SYSTEM ADJUSTMENT

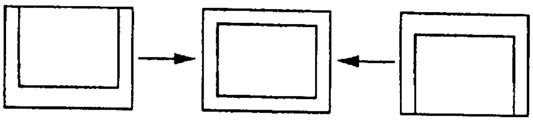
1. Enter into service mode and select CXD 2018 Q.
2. Select and adjust each item in order to get an optimum image.

01	V SIZE	ADJ.
02	V SHIFT	ADJ.
03	S CORRECTION	ADJ.
04	V LINEARITY	ADJ.
05	H SIZE	ADJ.
06	PIN AMP	ADJ.
07	TILT	ADJ.
08	UPPER CORNER	ADJ.
09	LOWER CORNER	ADJ.
10	V BOW	ADJ.
11	ANGLE	ADJ.
12	HV COMP.V	13
13	HV COMP.H	8
14	FRAME SHIFT	OFF
15	FREE RUN 60 Hz	OFF
16	SYSTEM 60 Hz	OFF
17	ASPECT WIDE	OFF
18	DOUBLE SCAM	OFF
19	NON INTERLACE	ON
20	H SHIFT	31
21	N/S CORRECTION	ADJ.

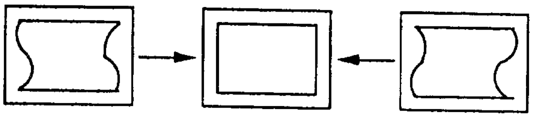
V SIZE



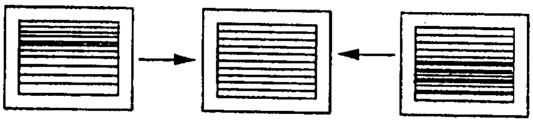
V SHIFT



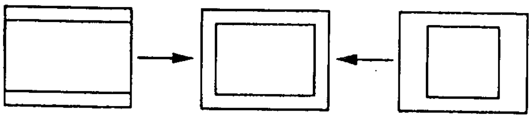
S CORRECTION



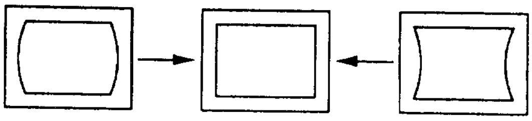
V LINEARITY



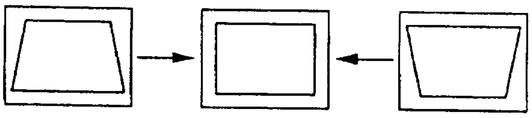
H SIZE



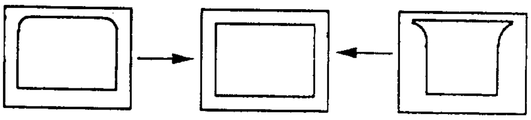
PIN AMP



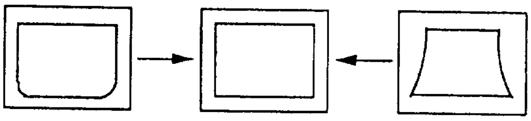
TILT



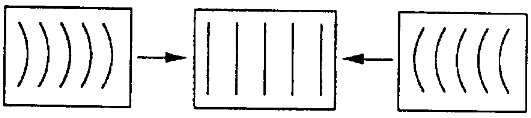
UPPER CORNER PIN



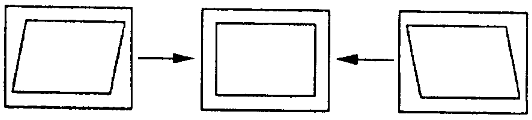
LOWER CORNER PIN



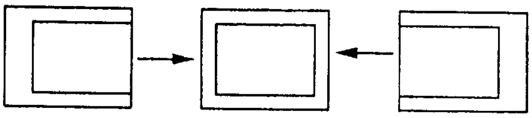
V BOW



ANGLE



H SHIFT



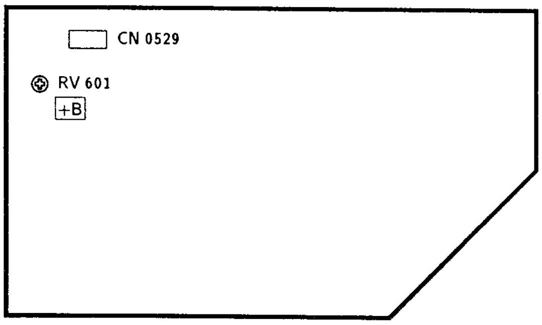
3. Press OK button to write the data.

If menu display may disturb the adjustment press 🔇 to clear, to resume it, press 🔇 again.

4-2. VOLUME ELECTRICAL ADJUSTMENTS

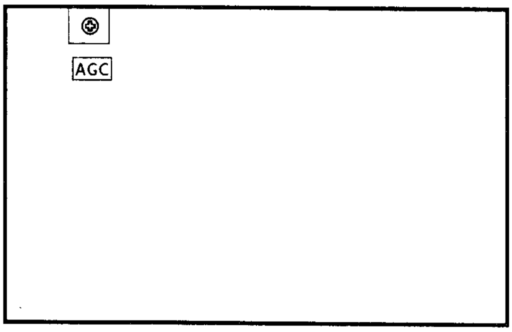
+B (+135 V) ADJUSTMENT (RV 601)

D BOARD



1. Turn on the power of the TV set.
2. Connect a digital multi-meter to ① pin of CN 0529 on D board.
3. Adjust RV 601 on D board to +135 V.

AGC ADJUSTMENT (IF BLOCK)



1. Receive off-air signal.
2. Adjust AGC VR so that there is no snow noise and cross-modulation.
3. Change receiving channel and confirm status.

4-3. TEST MODE 2 :

Is available by pressing Test button two times, OSD "TT"appears. The functions described bellow are available by pressing the two numbors. To release the Test Mode 2, press two times 0, or switch TV in Standby Mode.

00	switch Test Mode 2 off
01	picture maximum
02	picture minimum
03	Volume 35%
04	Volume 50%
05	Volume 65%
06	Volume 80%
07	Aging Condition (Volumin., Picture max., Brightness max., Aging 2 Mode of CXA 1587S, TDA 2595 is locked to CXA 1587S via PIN 34 of μ-Con.)
08	Shipping Condition (Analog Values are RESET due to factory setting, Prog 1 is selected, TT Mode is switched off)
09	dummy
10	Tenth entry is deleted
11	Balance
12	Hue
13-14	dummy
15	Read factory setting from NVM Reads Volume, Balance, Treble, Bass, Brightness, Contrast, Hue, Sharpness, Colour values from ROM to the actual used values (Last Power Memory)
16	Save actual used values as RESET values Memorize actual used values Balance, Treble, Bass, Hue, Sharpness at RESET position in NVM
17	Preset Lavel for AV Sources
18	dummy
19	Stereo Seperation
20	Tenth entry is deleted
21	Sub Contrast
22	Sub Colour
23	Sub Brightness
24-29	dummy

30	Tenth entry is deleted
31	Green Drive
32	Blue Drive
33	Green Cut Off (Auto Cut Off)
34	Blue Cut Off (Auto Cut Off)
35	Red Cut Off (Manual Cut Off) (Auto Cut Off is switched off)
36	Green Cut Off (Manual Cut Off) (Auto Cut Off is switched off)
37	Blue Cut Off (Manual Cut Off) (Auto Cut Off is switched off)
38	Y-Filter adjustment (Trap is switched off and TDA 9145 is switched in forced NTSC Mode)
39	dummy
40	Tenth entry is deleted
41	Default setting of CXA 1587S (Only in Plog 99 available)
42	Default setting of CXA 2018Q (Only in Plog 99 available)
43	Default setting of CXA 1526 (Only in Plog 99 available)
44	(all Port High) Not yet
45	(all Port High) Not yet
46-48	dummy
49	Erease the NVM Testbyte (this byte detects already stored NMV's) After selecting this function, switch TV Off and On → the NVM will be preset by μ-Controller. (Not the channel data)

Note: For No. 35, 36, 37 and 38 special pressing (AKB, forced Color Mode, Trap) is selected. After selecting a new Test Mode Number, the AKB is switched ON, the Trap is switched On and TDA 9145 is switched to Auto Search Mode.

In Test Mode 2 the Menu display is switchable by Speaker-Off button.

4-4. ERROR MESSAGE

Self diagnos system can operates as follows.

- When MP can't get the acknowledge back from the device, LED starts flashing according to the table as attached.

In case of more errors in parallel, the blinking error shows max. Priority according to the error number (e.g. error 2 and error 5 appears together, then LEDs shows error 2) .

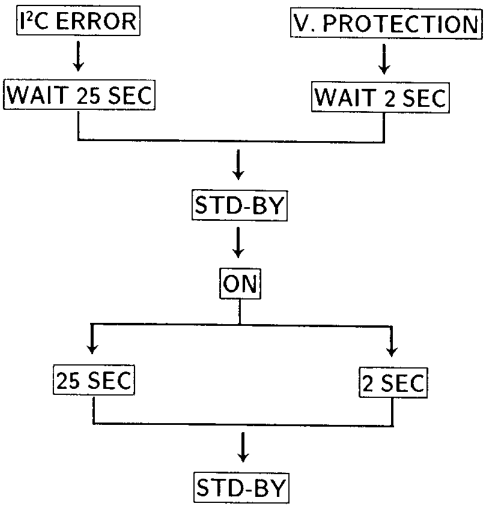


TABLE OF ERRORS

ERROR COUNT	IC TYPE	FUNCTION
1	ⅡC BUS	SDA low
2	X 24 C 16	EEPROM
3	SDA 3202	Tuner Pll
4	TDA 9145	Colour decoder
5	CXA 1587S	RGB/Jungle
6	TDA 6612	Sound processor
7	CXD 2018Q	V deflection
8	CXA 1545	AV switch
11	SDA 5248	Text
13		V protection

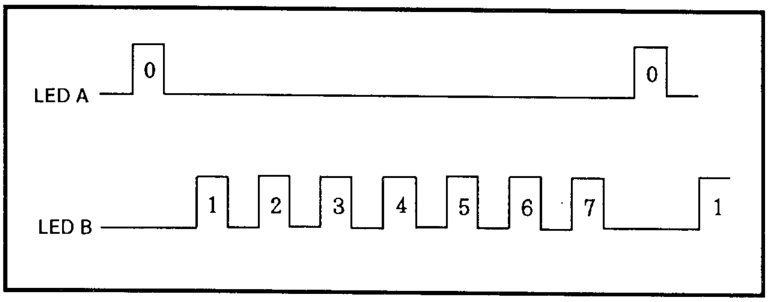
Stand by LED blinking

No IK return

4-5. ERROR ⅡC BUS DIAGNOSIS SYSTEM IN AE-2A CHASSIS AVAILABLE

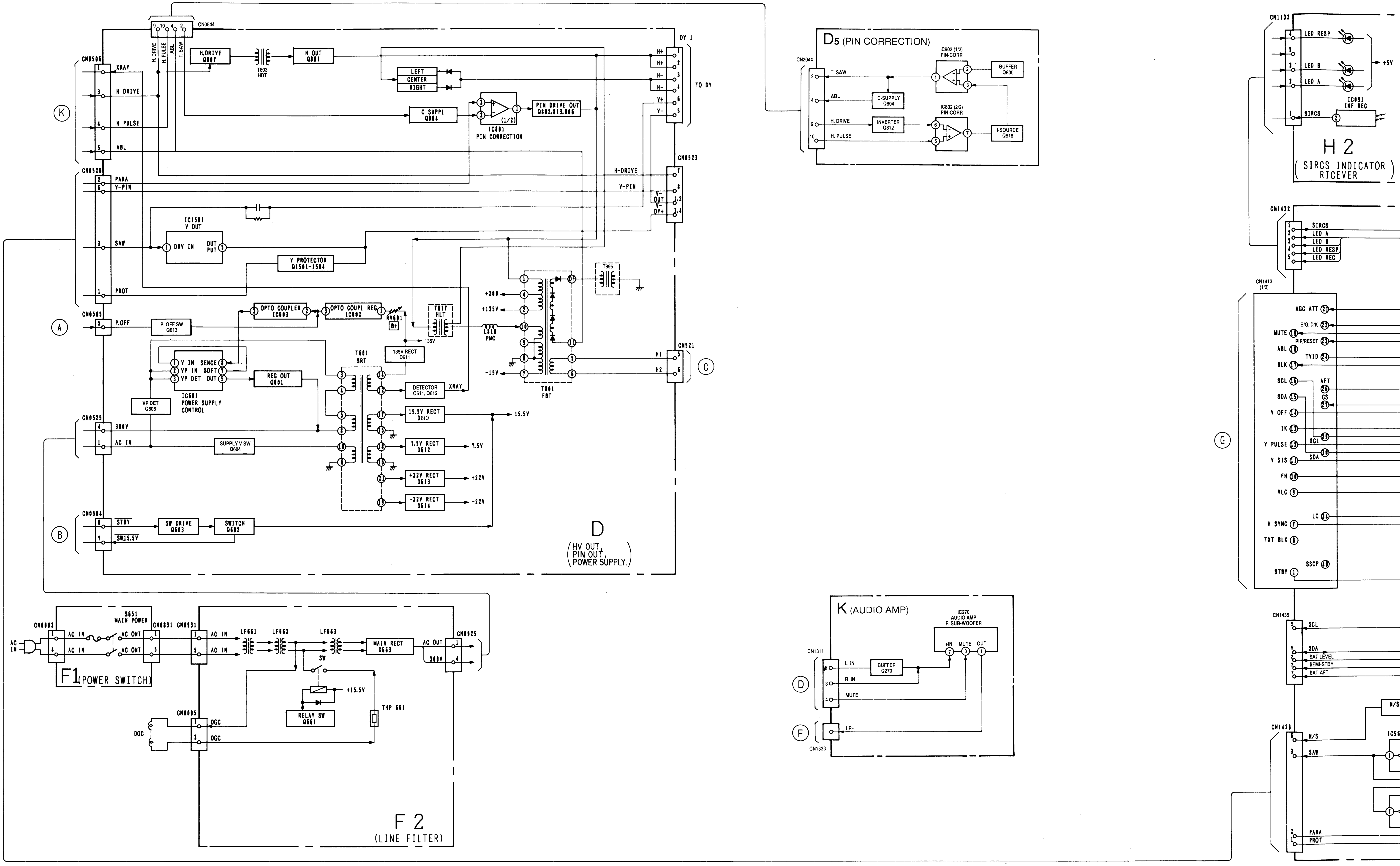
For all ICs in AE-2A chassis which are necessary to get picture and sound there is a built in error I²C Bus diagnosis system.

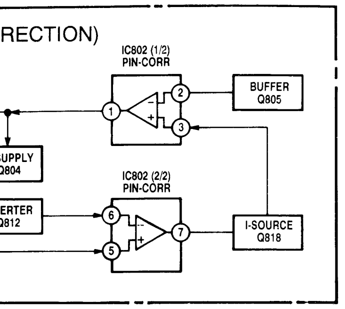
In case of no acknowledge bit, LED A and LED B starts blinking as shown.

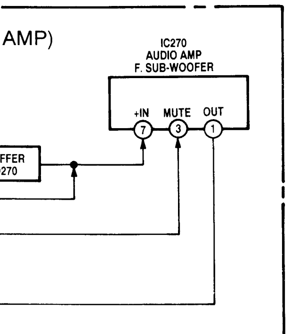


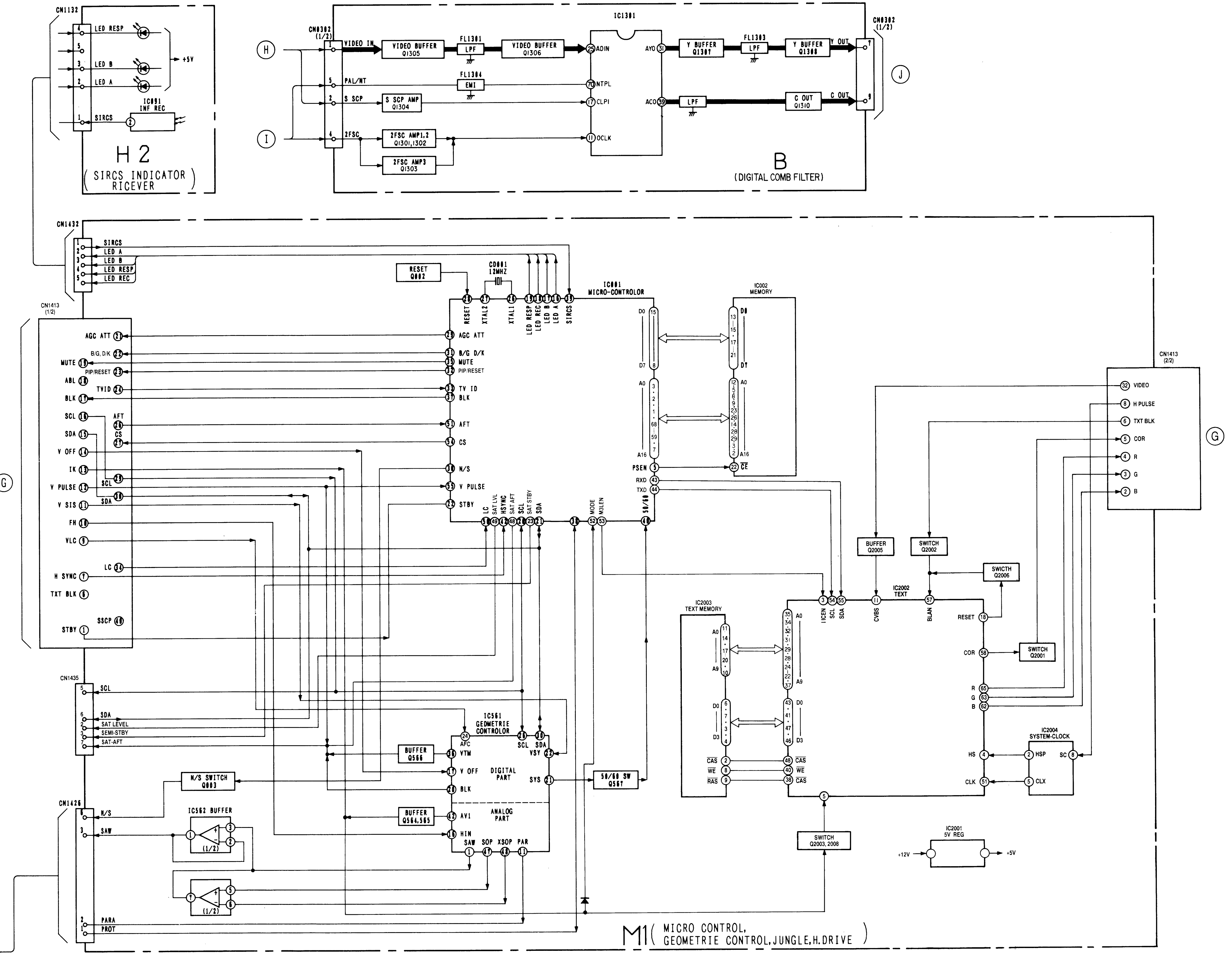
SECTION 5
DIAGRAMS

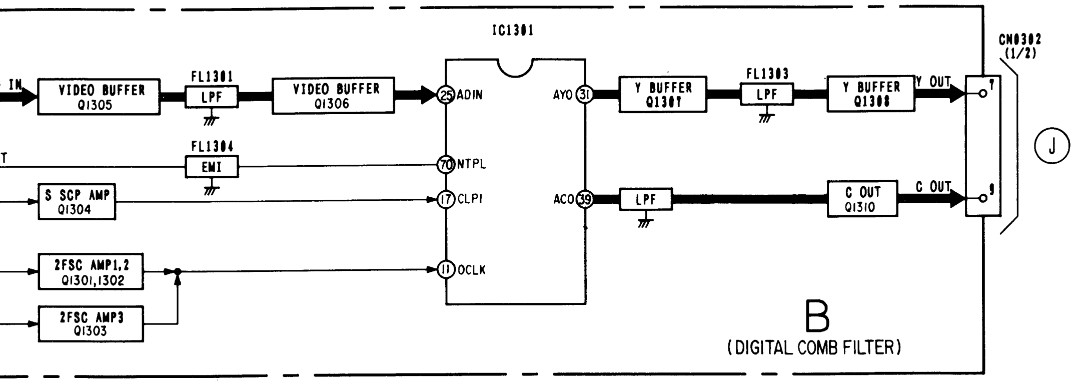
5-1. BLOCK DIAGRAM (1)

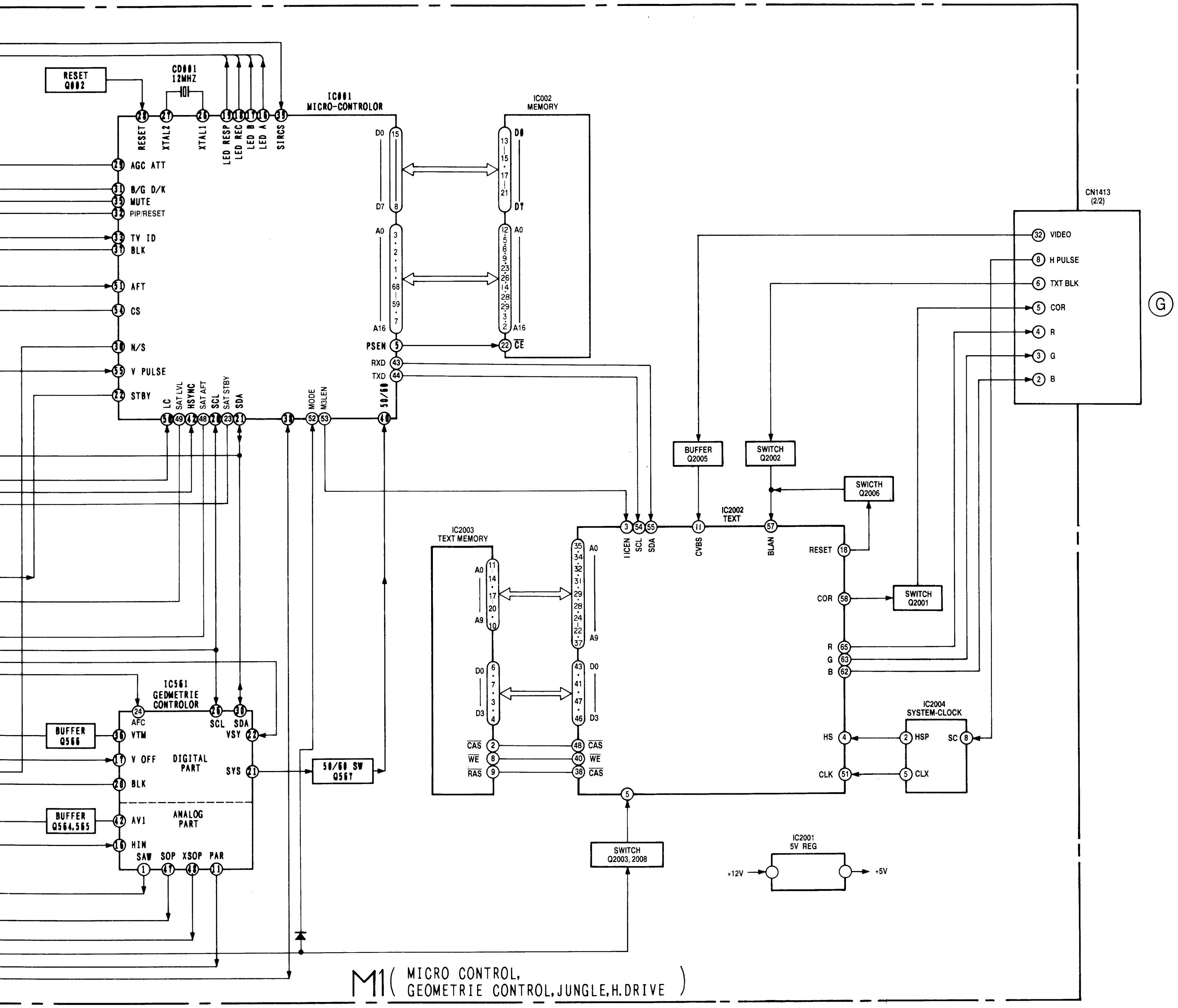

CN0544
9 10 4 2
H. DRIVE
H. PULSE
ABL
T. SAW
CN0506
XRAY
H DRIVE
H PULSE
ABL
K
H.DRIVE Q807
T803 HDT
H OUT Q801
LEFT
CENTER
RIGHT
C SUPPL Q804
IC801 PIN CORRECTION
(1/2)
PIN DRIVE OUT Q802,813,806
DY 1
H+
H+
H-
H-
V+
V-
TO DY
CN0526
PARA
V-PIN
SAW
PROT
CN0523
H-DRIVE
V-PIN
V-OUT
V-DY+
IC1501 V OUT
DRV IN
OUT PUT
V PROTECTOR Q1501-1504
T895
+200
+135V
-15V
L810 PMC
T817 HLT
T801 FBT
DF
CN0505
A
P.OFF
P. OFF SW Q613
OPTO COUPLER IC603
OPTO COUPL REG IC602
RV601
B+
135V
135V RECT D611
IC601 POWER SUPPLY CONTROL
V IN SENCE
VP IN SOFT
VP DET OUT
REG OUT Q601
VP DET Q606
T601 SRT
DETECTOR Q611, Q612
XRAY
15.5V RECT D610
15.5V
7.5V RECT D612
7.5V
+22V RECT D613
+22V
-22V RECT D614
-22V
CN0525
300V
AC IN
SUPPLY V SW Q604
CN521
H1
H2
C
CN0504
B
STBY
SW15.5V
SW DRIVE Q603
SWITCH Q602
D
(HV OUT, PIN OUT, POWER SUPPLY.)
AC IN
CN0003
AC IN
AC IN
S651 MAIN POWER
AC ONT
AC ONT
CN0831
F1(POWER SWITCH)
CN0931
AC IN
AC IN
LF661
LF662
LF663
SW
MAIN RECT D663
AC OUT
300V
CN0925
+15.5V
RELAY SW Q661
THP 661
CN0005
DGC
DGC
DGC
F 2
(LINE FILTER)
D5 (PIN CORRECTION)
CN2044
T. SAW
ABL
H. DRIVE
H. PULSE
C-SUPPLY Q804
INVERTER Q812
IC802 (1/2) PIN-CORR
IC802 (2/2) PIN-CORR
BUFFER Q805
I-SOURCE Q818
K (AUDIO AMP)
CN1311
L IN
R IN
MUTE
D
F
LR+
CN1333
BUFFER Q270
IC270 AUDIO AMP F. SUB-WOOFER
+IN
MUTE
OUT
CN1132
LED RESP
LED B
LED A
SIRCS
+5V
IC091 INF REC
H 2
(SIRCS INDICATOR RICEVER)
CN1432
SIRCS
LED A
LED B
LED RESP
LED REC
CN1413 (1/2)
G
AGC ATT
B/G, D/K
MUTE
PIP/RESET
ABL
TVID
BLK
SCL
AFT
SDA
CS
V OFF
IK
SCL
V PULSE
SDA
V SIS
FH
VLC
LC
H SYNC
TXT BLK
SSCP
STBY
CN1435
SCL
SDA
SAT LEVEL
SEMI-STBY
SAT-AFT
N/S
CN1426
N/S
IC56
SAW
PARA
PROT


RECTION)
IC802 (1/2) PIN-CORR
BUFFER Q805
UPPLY Q804
IC802 (2/2) PIN-CORR
ERTER Q812
I-SOURCE Q818


AMP)
IC270 AUDIO AMP F. SUB-WOOFER
+IN MUTE OUT
FFER 270

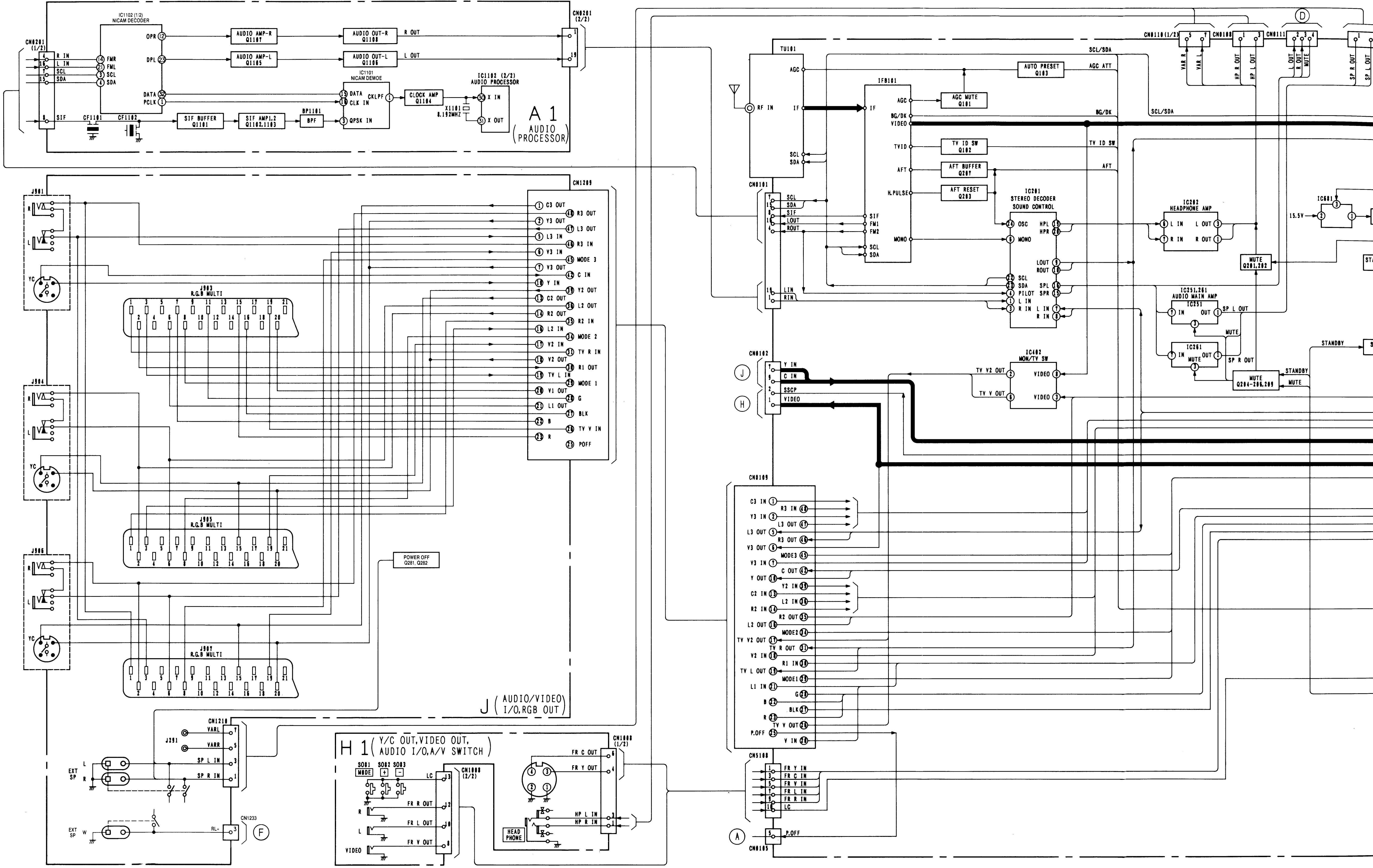

CN1132
LED RESP
LED B
LED A
SIRCS
+5V
IC001 INF REC
H 2
(SIRCS INDICATOR RICEVER)
CN0302 (1/2)
VIDEO IN
PAL/NT
S SCP
2FSC
VIDEO BUFFER Q1305
FL1301 LPF
VIDEO BUFFER Q1306
FL1304 EMI
S SCP AMP Q1304
2FSC AMP1,2 Q1301,1302
2FSC AMP3 Q1303
IC1301
ADIN
NTPL
CLPI
OCLK
AYO
ACO
Y BUFFER Q1307
FL1303 LPF
Y BUFFER Q1308
Y OUT
LPF
C OUT Q1310
C OUT
CN0302 (1/2)
B
(DIGITAL COMB FILTER)
H
I
J
CN1432
SIRCS
LED A
LED B
LED RESP
LED REC
RESET Q002
CD001 12MHZ
IC001 MICRO-CONTROLOR
RESET XTAL2 XTAL1 LED RESP LED REC LED B LED A SIRCS
AGC ATT
B/G D/K
MUTE
PIP/RESET
TV ID
BLK
AFT
CS
N/S
V PULSE
STBY
LC SAT LVL HSYNC SAT AFT SCL SAT STBY SDA
MODE M3LEN
50/60
D0 D7 A0 A16 PSEN RXD TXD
IC002 MEMORY
D0 D7 A0 A16 CE
CN1413 (1/2)
AGC ATT
B/G, D/K
MUTE
PIP/RESET
ABL
TVID
BLK
SCL
AFT
SDA
CS
V OFF
IK
SCL
V PULSE
SDA
V SIS
FH
VLC
LC
H SYNC
TXT BLK
SSCP
STBY
G
CN1435
SCL
SDA
SAT LEVEL
SEMI-STBY
SAT-AFT
IC561 GEOMETRIE CONTROLOR
AFC
SCL SDA
VTM
VSY
V OFF
DIGITAL PART
BLK
SYS
AV1
ANALOG PART
HIN
SAW SOP XSOP PAR
BUFFER Q566
N/S SWITCH Q003
BUFFER Q564,565
50/60 SW Q567
CN1426
N/S
SAW
IC562 BUFFER
(1/2)
PARA
PROT
M1 (MICRO CONTROL, GEOMETRIE CONTROL,JUNGLE,H.DRIVE)
CN1413 (2/2)
VIDEO
H PULSE
TXT BLK
COR
R
G
B
BUFFER Q2005
SWITCH Q2002
SWICTH Q2006
IC2002 TEXT
ICEN SCL SDA CVBS BLAN
RESET
COR
SWITCH Q2001
R G B
HS
CLK
IC2003 TEXT MEMORY
A0 A9 D0 D3
CAS WE RAS
A0 A9 D0 D3 CAS WE CAS
IC2004 SYSTEM-CLOCK
HSP SC CLX
SWITCH Q2003, 2008
IC2001 5V REG
+12V +5V

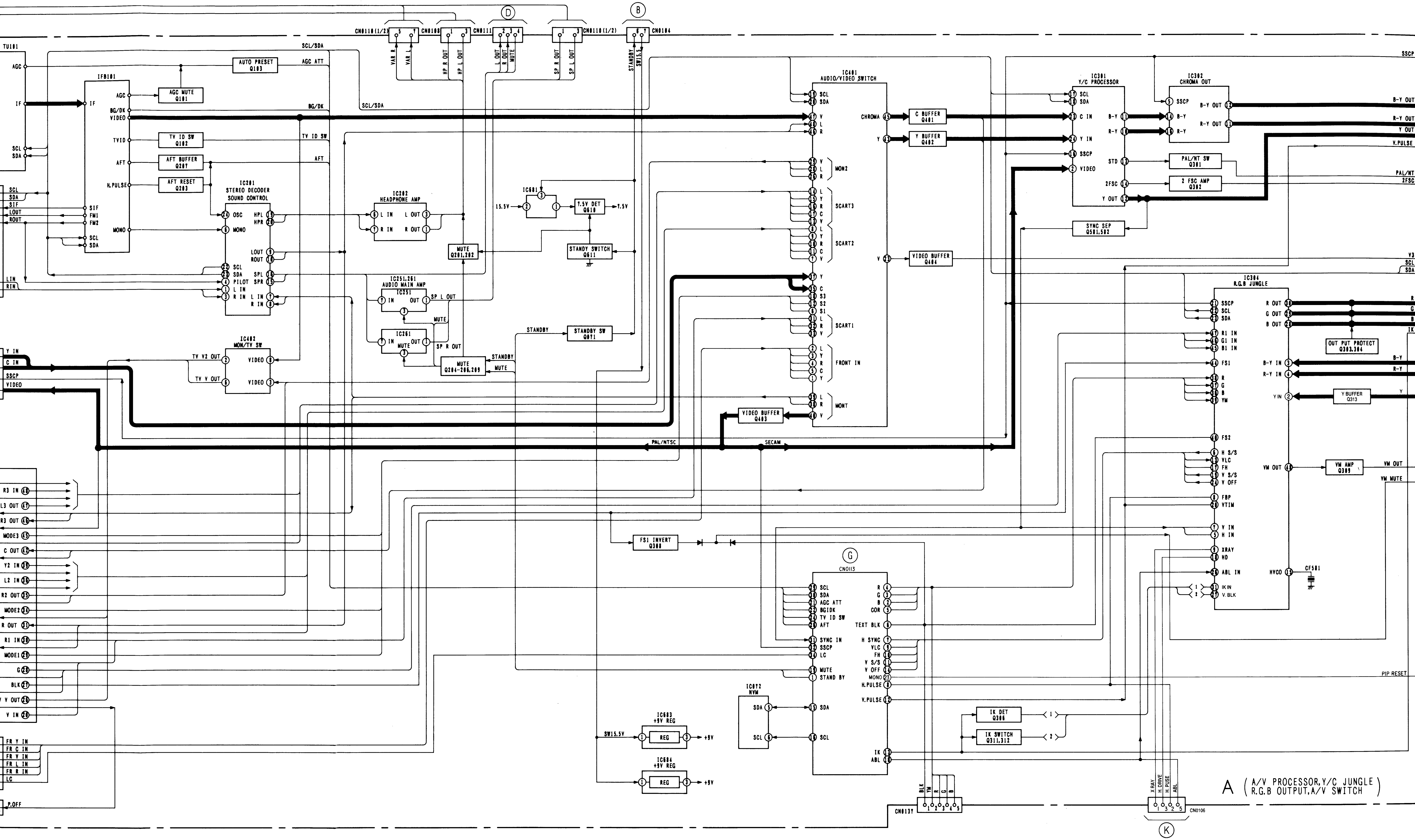

IC1301
CN0302 (1/2)
VIDEO BUFFER Q1305
FL1301 LPF
VIDEO BUFFER Q1306
ADIN
AYO
Y BUFFER Q1307
FL1303 LPF
Y BUFFER Q1308
Y OUT
FL1304 EMI
NTPL
S SCP AMP Q1304
CLPI
ACO
LPF
C OUT Q1310
C OUT
2FSC AMP1,2 Q1301,1302
OCLK
2FSC AMP3 Q1303
J
B
(DIGITAL COMB FILTER)


RESET Q002
CD001 12MHZ
IC001 MICRO-CONTROLOR
RESET
XTAL2
XTAL1
LED RESP
LED REC
LED B
LED A
SIRCS
AGC ATT
B/G D/K
MUTE
PIP/RESET
TV ID
BLK
AFT
CS
N/S
V PULSE
STBY
LC
SAT LVL
HSYNC
SAT AFT
SCL
SAT STBY
SDA
MODE
MSLEN
50/60
D0
D7
A0
A16
PSEN
RXD
TXD
IC002 MEMORY
CE
CN1413 (2/2)
VIDEO
H PULSE
TXT BLK
COR
R
G
B
G
BUFFER Q2005
SWITCH Q2002
SWICTH Q2006
IC2002 TEXT
ICEN
SCL
SDA
CVBS
BLAN
RESET
COR
SWITCH Q2001
IC2003 TEXT MEMORY
A9
D3
CAS
WE
RAS
HS
CLK
IC2004 SYSTEM-CLOCK
HSP
SC
CLX
SWITCH Q2003, 2008
IC2001 5V REG
+12V
+5V
IC561 GEOMETRIE CONTROLOR
AFC
SCL
SDA
VSY
BUFFER Q566
VTM
V OFF
DIGITAL PART
SYS
50/60 SW Q567
BLK
BUFFER Q564,565
AVI
ANALOG PART
HIN
SAW
SOP
XSOP
PAR
M1 (MICRO CONTROL, GEOMETRIE CONTROL, JUNGLE, H.DRIVE)

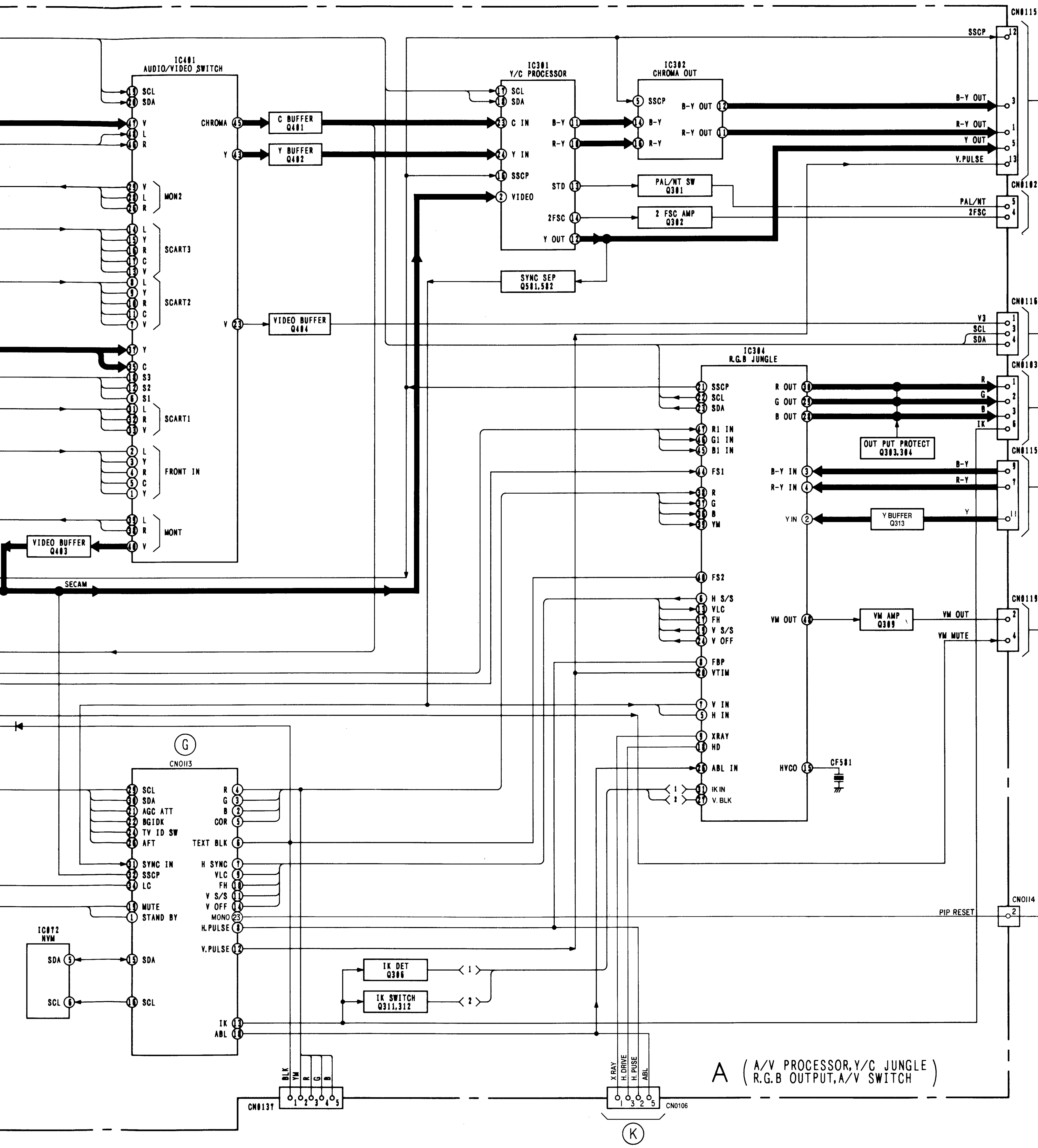
BLOCK DIAGRAM (2)

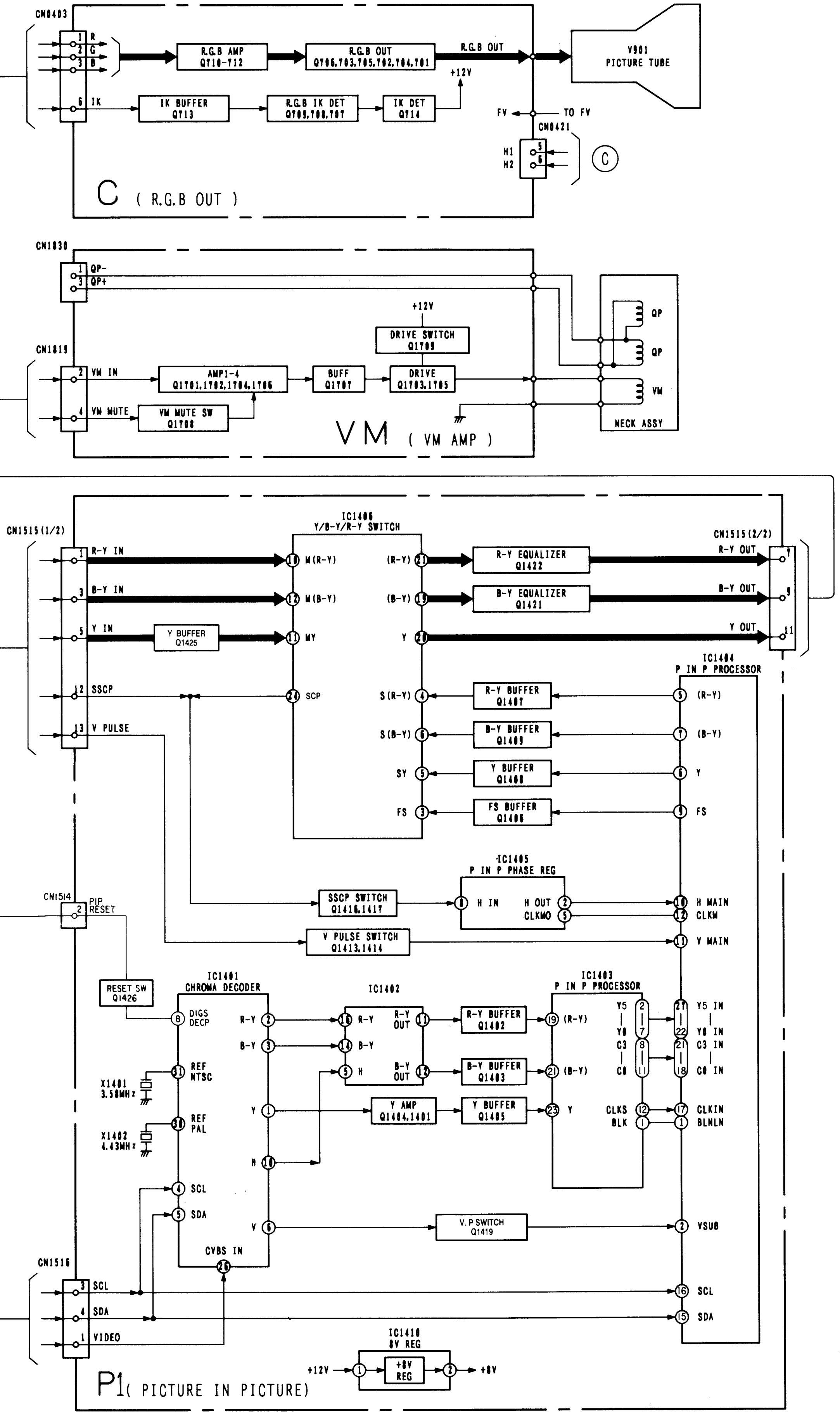
Spanish, UK model only


IC1102 (1/2) NICAM DECODER
CN0201 (1/2)
R IN
L IN
SCL
SDA
SIF
FMR
FML
OPR
DPL
DATA
PCLK
AUDIO AMP-R Q1107
AUDIO AMP-L Q1105
AUDIO OUT-R Q1108
AUDIO OUT-L Q1106
R OUT
L OUT
CN0201 (2/2)
IC1101 NICAM DEMOD
CLK IN
QPSK IN
CKLPF
CLOCK AMP Q1104
X1101 8.192MHZ
IC1102 (2/2) AUDIO PROCESSOR
X IN
X OUT
CF1101
CF1102
SIF BUFFER Q1101
SIF AMP1,2 Q1102,1103
BP1101
BPF
A 1
AUDIO PROCESSOR
J901
J904
J906
YC
J903 R.G.B MULTI
J905 R.G.B MULTI
J907 R.G.B MULTI
CN1209
C3 OUT
Y3 OUT
L3 IN
V3 IN
V3 OUT
Y IN
C2 OUT
R2 OUT
L2 IN
V1 IN
V2 OUT
TV L IN
V1 OUT
L1 OUT
B
R
R3 OUT
L3 OUT
R3 IN
MODE 3
C IN
Y2 OUT
L2 OUT
R2 IN
MODE 2
TV R IN
R1 OUT
MODE 1
G
BLK
TV V IN
POFF
POWER OFF Q281, Q282
J AUDIO/VIDEO I/O,RGB OUT
CN1210
J291
VARL
VARR
SP L IN
SP R IN
EXT SP
L
R
W
CN1233
RL+
F
H 1 Y/C OUT,VIDEO OUT, AUDIO I/O,A/V SWITCH
S081 MODE
S082 +
S083 −
LC
FR R OUT
FR L OUT
FR V OUT
VIDEO
CN1008 (2/2)
CN1008 (1/2)
FR C OUT
FR Y OUT
HP L IN
HP R IN
HEAD PHONE
TU101
RF IN
AGC
IF
SCL
SDA
CN0101
LOUT
ROUT
LIN
RIN
IFB101
BG/DK
VIDEO
TVID
AFT
H.PULSE
FM1
FM2
MONO
AGC MUTE Q101
AUTO PRESET Q103
AGC ATT
SCL/SDA
TV ID SW Q102
TV ID SW
AFT BUFFER Q207
AFT RESET Q203
IC201 STEREO DECODER SOUND CONTROL
OSC
HPL
HPR
PILOT
L IN
R IN
SPL
SPR
IC202 HEADPHONE AMP
MUTE Q201,202
IC251,261 AUDIO MAIN AMP
IC251
IC261
SP L OUT
SP R OUT
MUTE
STANDBY
MUTE Q204-206,209
IC601
15.5V
CN0110 (1/2)
CN0108
CN0111
D
VAR R
VAR L
HP R OUT
HP L OUT
L OUT
R OUT
MUTE
SP R OUT
SP L OUT
CN0102
J
H
SSCP
IC402 MON/TV SW
TV V2 OUT
TV V OUT
CN0109
C3 IN
Y3 IN
L3 OUT
V3 OUT
V3 IN
Y OUT
C2 IN
R2 IN
L2 OUT
TV V2 OUT
V2 IN
TV L OUT
L1 IN
P.OFF
R3 IN
L3 OUT
R3 OUT
MODE3
C OUT
Y2 IN
L2 IN
R2 OUT
MODE2
TV R OUT
R1 IN
MODE1
TV V OUT
V IN
CN5108
FR Y IN
FR C IN
FR V IN
FR L IN
FR R IN
A
CN0105

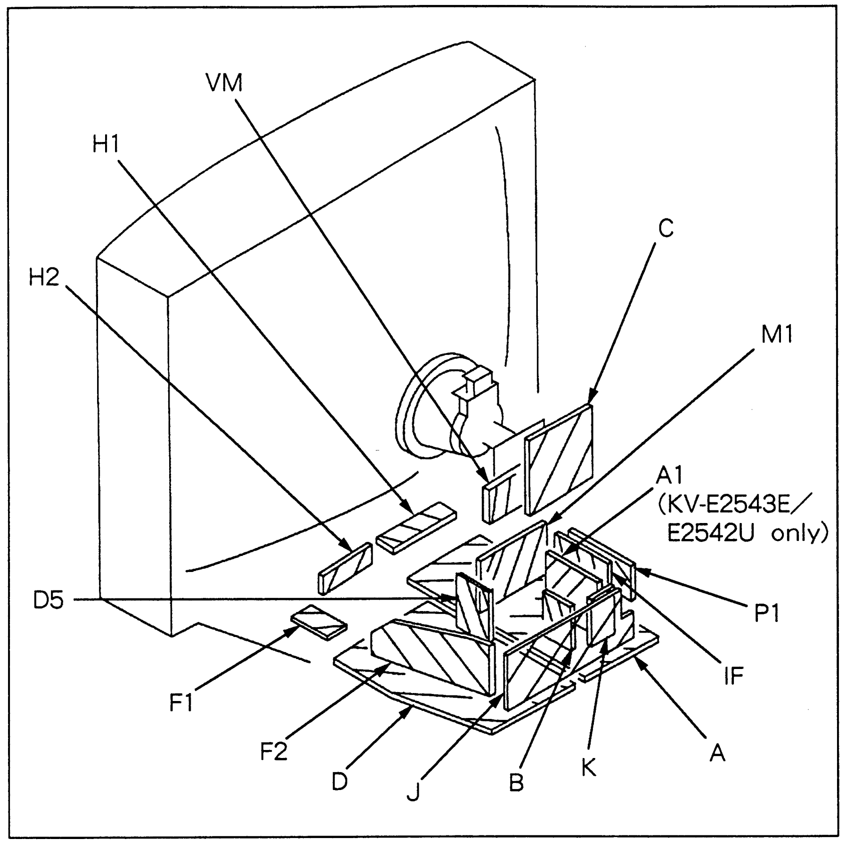

CN0110 (1/2)
CN0108
CN0111
CN0110 (1/2)
CN0104
VAR R
VAR L
HP R OUT
HP L OUT
L OUT
R OUT
MUTE
SP R OUT
SP L OUT
STANDBY
SW15.5
TU101
AGC
IF
SCL
SDA
SCL/SDA
AUTO PRESET Q103
AGC ATT
IFB101
AGC MUTE Q101
BG/DK
VIDEO
TVID
TV ID SW Q102
AFT
AFT BUFFER Q207
H.PULSE
AFT RESET Q203
SIF
FM1
FM2
MONO
IC201 STEREO DECODER SOUND CONTROL
OSC
HPL
HPR
LOUT
ROUT
PILOT
L IN
R IN
SPL
SPR
IC202 HEADPHONE AMP
MUTE Q201,202
IC601
15.5V
7.5V DET Q610
7.5V
STANDY SWITCH Q611
IC251,261 AUDIO MAIN AMP
IC251
IC261
SP L OUT
SP R OUT
MUTE Q204-206,209
STANDBY
STANDBY SW Q071
IC402 MON/TV SW
TV V2 OUT
TV V OUT
VIDEO
Y IN
C IN
SSCP
LIN
RIN
IC401 AUDIO/VIDEO SWITCH
MON2
SCART3
SCART2
SCART1
FRONT IN
MONT
CHROMA
C BUFFER Q401
Y BUFFER Q402
VIDEO BUFFER Q404
VIDEO BUFFER Q403
PAL/NTSC
SECAM
IC301 Y/C PROCESSOR
C IN
Y IN
B-Y
R-Y
STD
2FSC
Y OUT
PAL/NT SW Q301
2 FSC AMP Q302
SYNC SEP Q501,502
IC302 CHROMA OUT
B-Y OUT
R-Y OUT
IC304 R.G.B JUNGLE
R OUT
G OUT
B OUT
OUT PUT PROTECT Q303,304
B-Y IN
R-Y IN
YIN
Y BUFFER Q313
VM OUT
VM AMP Q309
VM MUTE
HVCO
CF501
FS1
FS2
H S/S
VLC
FH
V S/S
V OFF
FBP
VTIM
V IN
H IN
XRAY
HD
ABL IN
IKIN
V.BLK
FS1 INVERT Q308
CN0113
SCL
SDA
AGC ATT
BGIDK
TV ID SW
AFT
SYNC IN
SSCP
LC
MUTE
STAND BY
TEXT BLK
H SYNC
H.PULSE
V.PULSE
COR
IK
ABL
IC072 NVM
IK DET Q306
IK SWITCH Q311,312
PIP RESET
IC603 +9V REG
IC604 +9V REG
SW15.5V
REG
+9V
CN0137
BLK
YM
R
G
B
CN0106
X RAY
H. DRIVE
H. PUSE
ABL
R3 IN
L3 OUT
R3 OUT
MODE3
C OUT
Y2 IN
L2 IN
R2 OUT
MODE2
R OUT
R1 IN
MODE1
G
BLK
V OUT
V IN
FR Y IN
FR C IN
FR V IN
FR L IN
FR R IN
LC
P.OFF
D
B
G
K

A (A/V PROCESSOR, Y/C JUNGLE
R.G.B OUTPUT, A/V SWITCH)


IC401 AUDIO/VIDEO SWITCH
C BUFFER Q401
Y BUFFER Q402
VIDEO BUFFER Q404
VIDEO BUFFER Q403
MON2
SCART3
SCART2
SCART1
FRONT IN
MONT
SECAM
IC301 Y/C PROCESSOR
IC302 CHROMA OUT
PAL/NT SW Q301
2 FSC AMP Q302
SYNC SEP Q501,502
IC304 R.G.B JUNGLE
OUT PUT PROTECT Q303,304
Y BUFFER Q313
VM AMP Q309
CF501
CN0115(1/2)
CN0102
CN0116
CN0103
CN0119
CN0114
PIP RESET
CN0113
IC002 NVM
IK DET Q306
IK SWITCH Q311,312
CN0137
CN0106
A (A/V PROCESSOR,Y/C JUNGLE R.G.B OUTPUT,A/V SWITCH)
G
I
K


CN0403
R.G.B AMP Q710-712
R.G.B OUT Q706,703,705,702,704,701
R.G.B OUT
V901 PICTURE TUBE
IK BUFFER Q713
R.G.B IK DET Q708,708,707
IK DET Q714
+12V
TO FV
CN0421
C (R.G.B OUT)
CN1830
CN1819
AMP1-4 Q1701,1702,1704,1706
BUFF Q1707
DRIVE SWITCH Q1709
DRIVE Q1703,1705
VM MUTE SW Q1708
VM (VM AMP)
NECK ASSY
CN1515(1/2)
CN1515(2/2)
IC1406 Y/B-Y/R-Y SWITCH
R-Y EQUALIZER Q1422
B-Y EQUALIZER Q1421
Y BUFFER Q1425
IC1404 P IN P PROCESSOR
R-Y BUFFER Q1407
B-Y BUFFER Q1409
Y BUFFER Q1408
FS BUFFER Q1406
IC1405 P IN P PHASE REG
SSCP SWITCH Q1416,1417
V PULSE SWITCH Q1413,1414
CN1514
RESET SW Q1426
IC1401 CHROMA DECODER
IC1402
IC1403 P IN P PROCESSOR
R-Y BUFFER Q1402
B-Y BUFFER Q1403
Y AMP Q1404,1401
Y BUFFER Q1405
X1401 3.58MHz
X1402 4.43MHz
V.P SWITCH Q1419
CN1516
IC1410 8V REG
P1 (PICTURE IN PICTURE)

5-2. CIRCUIT BOARDS LOCATION


VM
H1
H2
C
M1
A1
(KV-E2543E/
E2542U only)
D5
P1
IF
F1
F2
D
J
B
K
A

Reference information

RESISTOR	RN	: METAL FILM
	RC	: SOLID
	FPRD	: NONFLAMMABLE CARBON
	FUSE	: NONFLAMMABLE FUSIBLE
	RS	: NONFLAMMABLE METAL OXIDE
	RB	: NONFLAMMABLE CEMENT
	RW	: NONFLAMMABLE WIREWOUND
	※	: ADJUSTMENT RESISTOR
COIL	LF-8L	: MICRO INDUCTOR
CAPACITOR	TA	: TANTALUM
	PS	: STYROL
	PP	: POLYPROPYLENE
	PT	: MYLAR
	MPS	: METALIZED POLYESTER
	MPP	: METALIZED POLYPROPYLENE
	ALB	: BIPOLAR
	ALT	: HIGH TEMPERATURE
	ALR	: HIGH RIPPLE

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

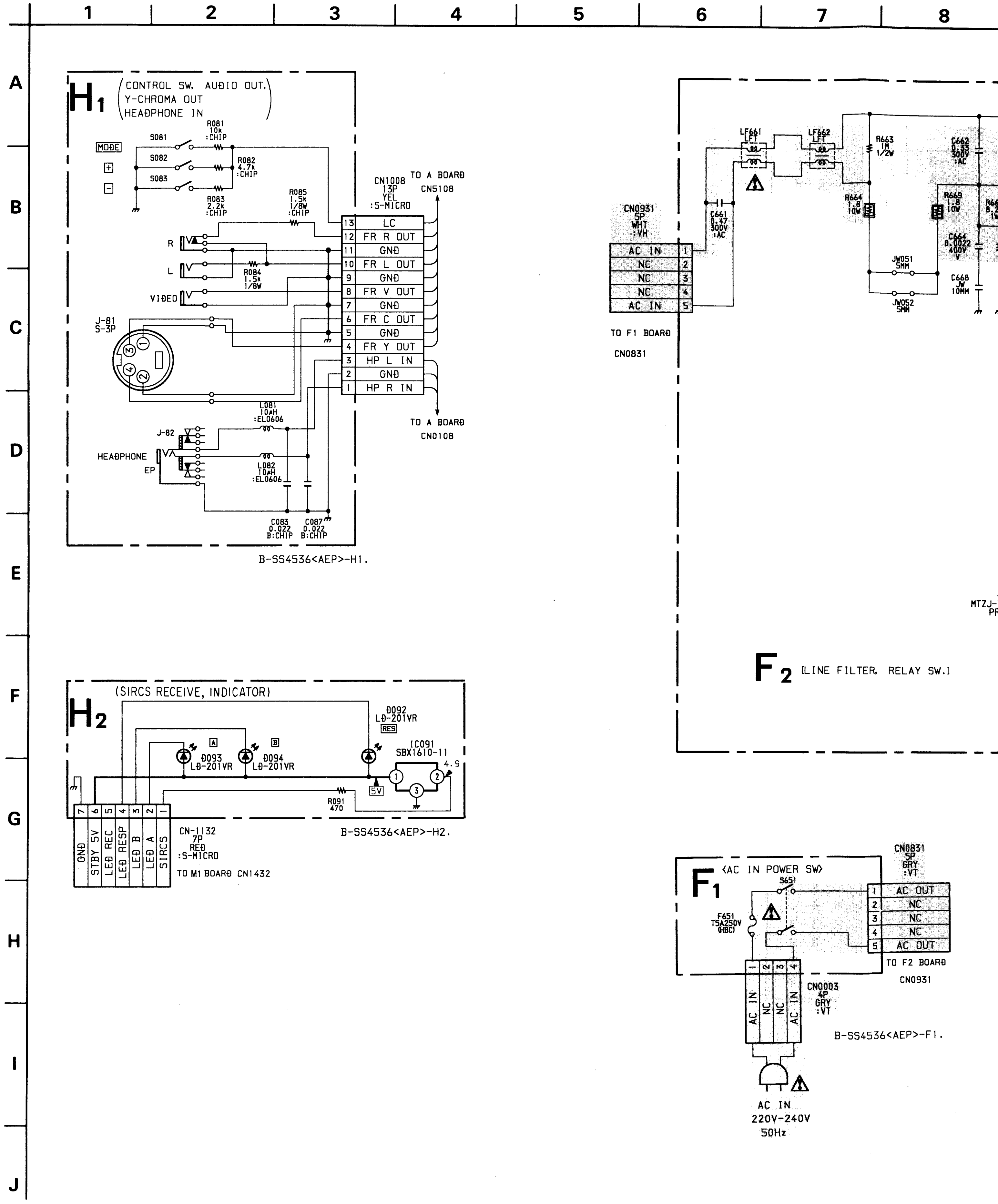
5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note :

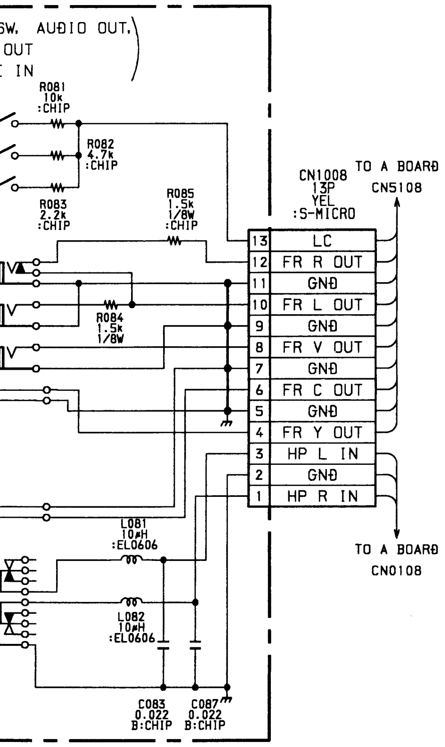
- All capacitors are in μ F unless otherwise noted.
  pF : μ μ F 50WV or less are not indicated except for electrolytic.
- Indication of resistance, which dose not have one for rating electrical power, is as follows.

Pitch : 5mm
Rating electrical power : ¼W

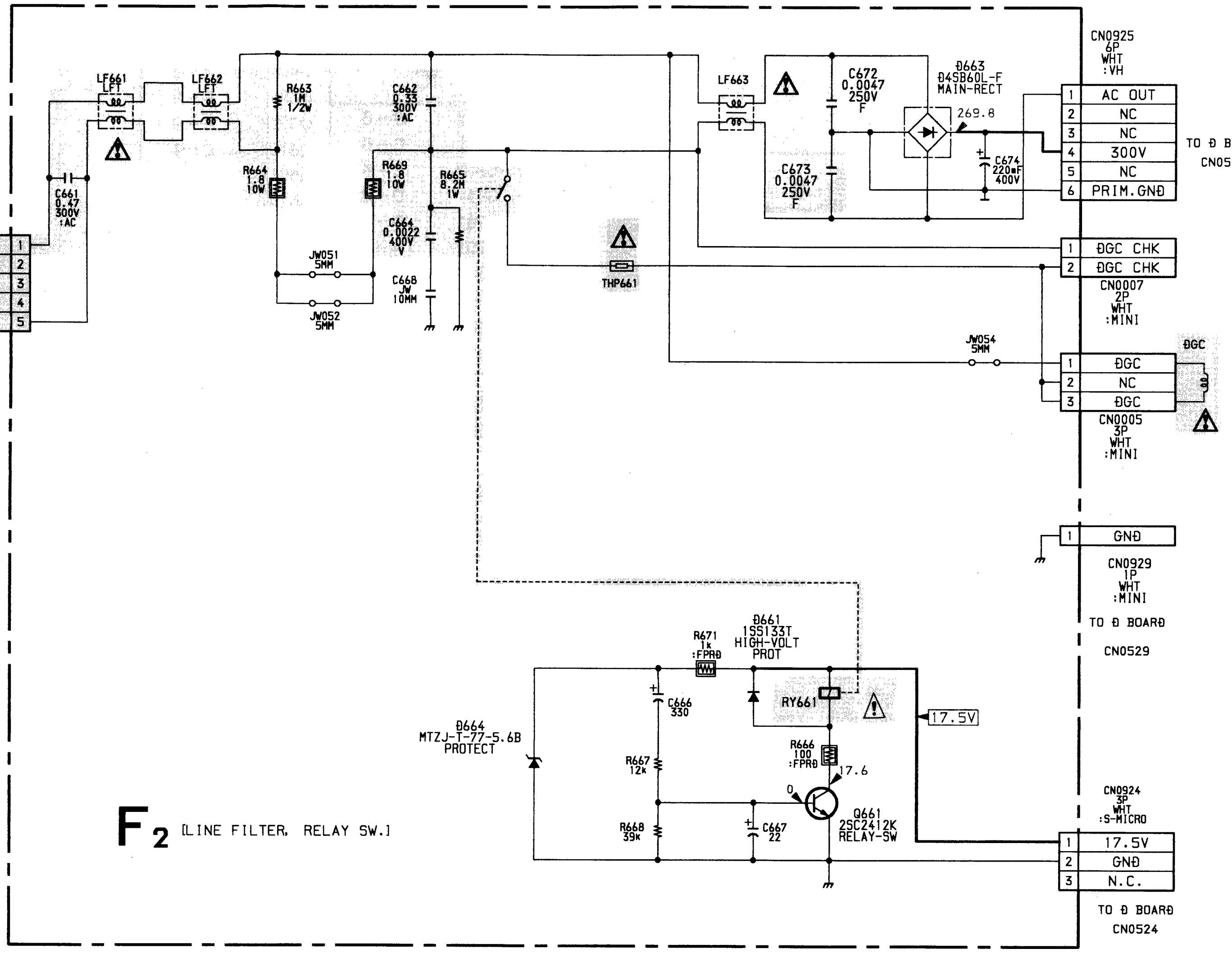
- Chip resistor is in 1/10W.
- All resistors are in ohms.
  k Ω = 1000 Ω, M Ω = 1000K Ω
- : nonflammable resistor.
- : fusible resistor.
- △ : internal component.
- ▭ : panel designation or adjustment for repair.
- All variable and adjustable resistors have charactristic curve B, unless otherwise noted.
- All voltages are in V.
- Readings are taken with a 10M Ω digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
- ▬ : B + bus.
- ▬ ▬ : B − bus.
- ▨ : signal path.(RF)
- ⏚ : earth - ground
- : earth - chassis


1
2
3
4
5
6
7
8
A
B
C
D
E
F
G
H
I
J
H1
CONTROL SW, AUDIO OUT,
Y-CHROMA OUT
HEADPHONE IN
MODE
+
−
S081
S082
S083
R081 10k :CHIP
R082 4.7k :CHIP
R083 2.2k :CHIP
R084 1.5k 1/8W
R085 1.5k 1/8W :CHIP
CN1008 13P YEL :S-MICRO
TO A BOARD CN5108
13 LC
12 FR R OUT
11 GND
10 FR L OUT
9 GND
8 FR V OUT
7 GND
6 FR C OUT
5 GND
4 FR Y OUT
3 HP L IN
2 GND
1 HP R IN
TO A BOARD CN0108
R
L
VIDEO
J-81 S-3P
J-82
HEADPHONE
EP
L081 10μH :EL0606
L082 10μH :EL0606
C083 0.022 B:CHIP
C087 0.022 B:CHIP
B-SS4536<AEP>-H1.
H2
(SIRCS RECEIVE, INDICATOR)
D092 LD-201VR
RES
A
B
D093 LD-201VR
D094 LD-201VR
IC091 SBX1610-11
4.9
5V
R091 470
7 GND
6 STBY 5V
5 LED REC
4 LED RESP
3 LED B
2 LED A
1 SIRCS
CN-1132 7P RED :S-MICRO
TO M1 BOARD CN1432
B-SS4536<AEP>-H2.
CN0931 5P WHT :VH
1 AC IN
2 NC
3 NC
4 NC
5 AC IN
TO F1 BOARD CN0831
C661 0.47 300V :AC
LF661 LFT
LF662 LFT
R663 1M 1/2W
R664 1.8 10W
C662 0.33 300V :AC
R669 1.8 10W
C664 0.0022 400V
JW051 5MM
JW052 5MM
C668 JW 10MM
MTZJ-
F2 [LINE FILTER, RELAY SW.]
F1 <AC IN POWER SW>
S651
F651 T5A250V (HBC)
CN0831 5P GRY :VT
1 AC OUT
2 NC
3 NC
4 NC
5 AC OUT
TO F2 BOARD CN0931
1 AC IN
2 NC
3 NC
4 AC IN
CN0003 4P GRY :VT
B-SS4536<AEP>-F1.
AC IN
220V-240V
50Hz

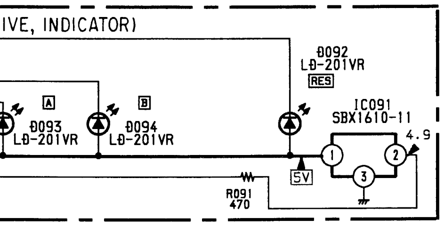
H1 [CONTROL SW, AUDIO OUT Y – CHROMA OUT, HEADPHONE] **H2** [SIRC INDI


SW, AUDIO OUT,
OUT
IN
R081 10k :CHIP
R082 4.7k :CHIP
R083 2.2k :CHIP
R084 1.5k 1/8W
R085 1.5k 1/8W :CHIP
CN1008 13P YEL :S-MICRO
TO A BOARD CN5108
13 LC
12 FR R OUT
11 GND
10 FR L OUT
9 GND
8 FR V OUT
7 GND
6 FR C OUT
5 GND
4 FR Y OUT
3 HP L IN
2 GND
1 HP R IN
TO A BOARD CN0108
L081 10µH :EL0606
L082 10µH :EL0606
C083 0.022 B:CHIP
C087 0.022 B:CHIP

B-SS4536<AEP>-H1.

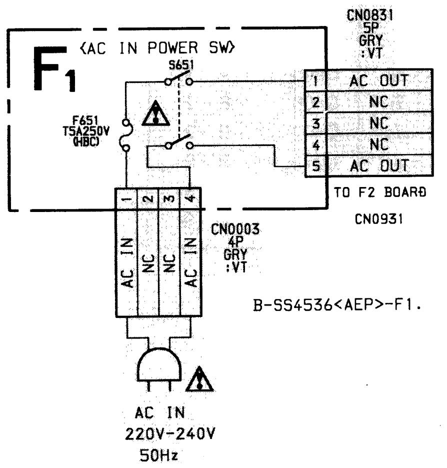

LF661 LFT
LF662 LFT
R663 1M 1/2W
C662 0.33 300V :AC
LF663
C672 0.0047 250V F
D663 D4SB60L-F MAIN-RECT
269.8
C673 0.0047 250V F
C674 220mF 400V
CN0925 6P WHT :VH
1 AC OUT
2 NC
3 NC
4 300V
5 NC
6 PRIM.GND
TO D BOARD CN0525
CN0931 5P WHT :VH
1 AC IN
2 NC
3 NC
4 NC
5 AC IN
TO F1 BOARD CN0831
C661 0.47 300V :AC
R664 1.8 10W
R669 1.8 10W
R665 8.2M 1W
C664 0.0022 400V
C668 1W 10MM
JW051 5MM
JW052 5MM
THP661
1 DGC CHK
2 DGC CHK
CN0007 2P WHT :MINI
JW054 5MM
DGC
1 DGC
2 NC
3 DGC
CN0005 3P WHT :MINI
1 GND
CN0929 1P WHT :MINI
TO D BOARD CN0529
R671 1k :FPRD
D661 1SS133T HIGH-VOLT PROT
C666 330
RY661
D664 MTZJ-T-77-5.6B PROTECT
R667 12k
R666 100 :FPRD
17.6
17.5V
0
R668 39k
C667 22
Q661 2SC2412K RELAY-SW
CN0924 3P WHT :S-MICRO
1 17.5V
2 GND
3 N.C.
TO D BOARD CN0524
F2 [LINE FILTER, RELAY SW.]

B-SS4536<AEP>-F2.


IVE, INDICATOR)
D092 LD-201VR
RES
IC091 SBX1610-11
4.9
A
B
D093 LD-201VR
D094 LD-201VR
5V
R091 470
1 2 3

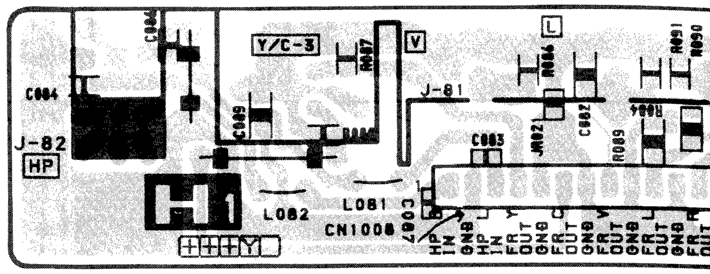
B-SS4536<AEP>-H2.

CN-1132 7P RED S-MICRO
O M1 BOARD CN1432

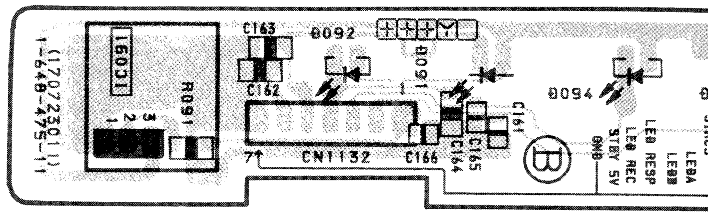

F1 <AC IN POWER SW>
S651
F651 T5A250V (HBC)
CN0831 5P GRY :VT
1 AC OUT
2 NC
3 NC
4 NC
5 AC OUT
TO F2 BOARD CN0931
1 2 3 4
AC IN
NC
NC
AC IN
CN0003 4P GRY :VT
AC IN 220V-240V 50Hz

B-SS4536<AEP>-F1.

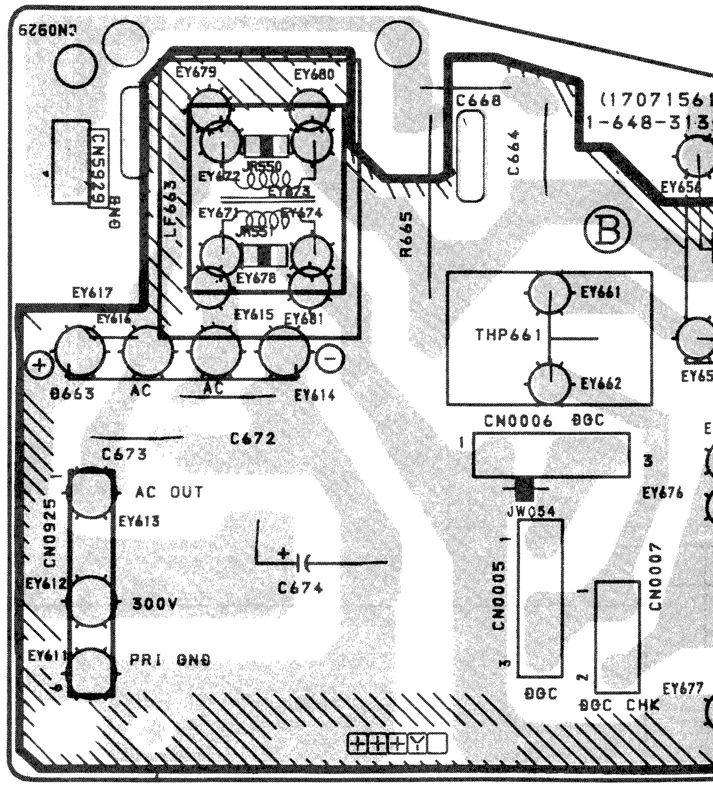
– H1 BOARD –

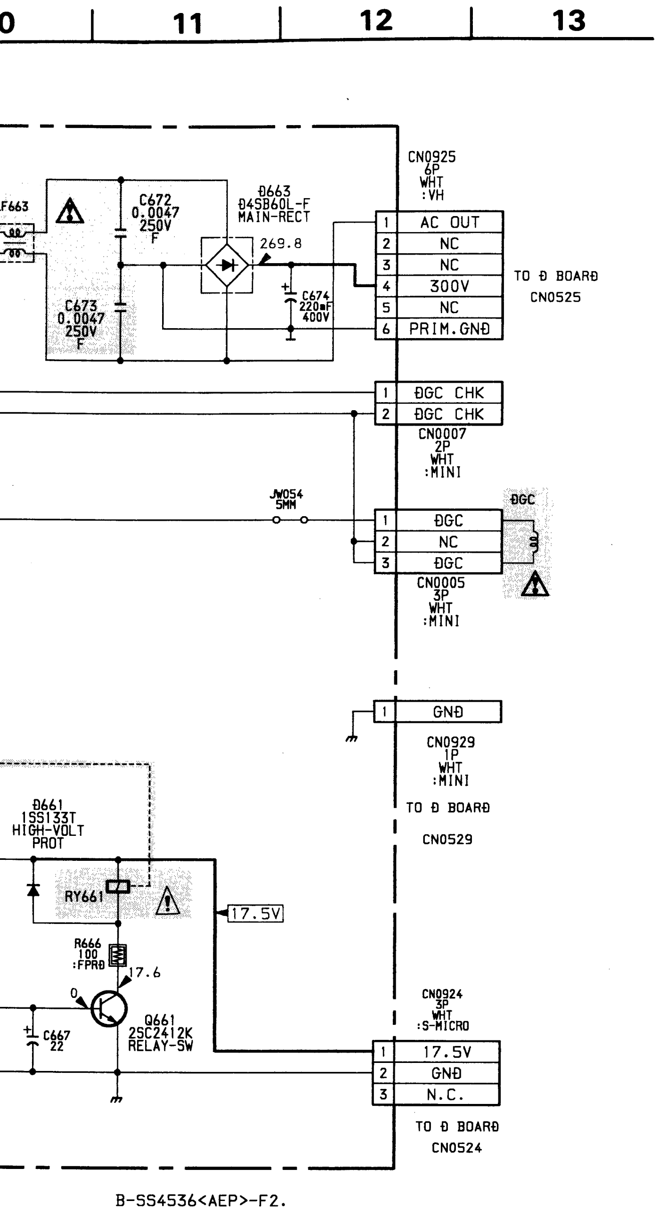

Y/C-3
V
L
J-81
J-82
HP
L082
L081
CN1008
C003
C083
C082
R089
C004

– H2 BOARD –


1-648-475-11 (1707230-11)
IC091
R091
C163
D092
D091
C162
D094
C161
CN1132
C166
B
LED RESP
LED REC
STBY 5V
GND

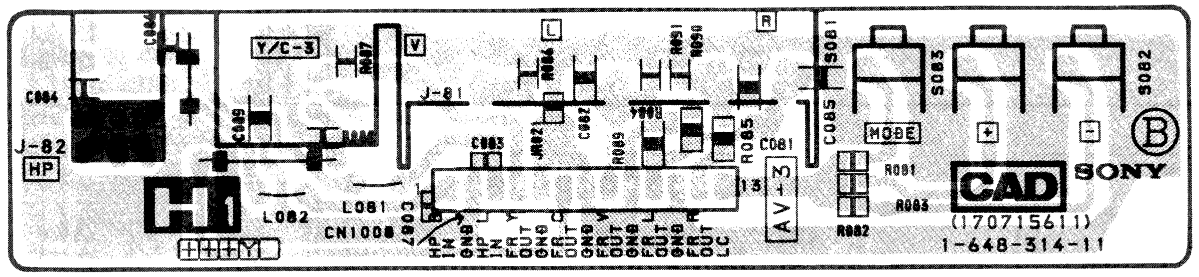
– F2 BOARD –


CN0929
CN5929
GND
EY679
EY680
C668
C664
(1707156
1-648-313
LF663
EY672
JR550
EY673
EY671
JR551
EY674
R665
EY654
EY678
B
EY617
EY616
EY615
EY681
THP661
EY661
EY662
D663
AC
AC
EY614
C672
CN0006 DGC
C673
AC OUT
EY613
JW054
EY676
CN0925
EY612
C674
300V
CN0005
CN0007
EY611
PRI GND
DGC
DGC CHK
EY677

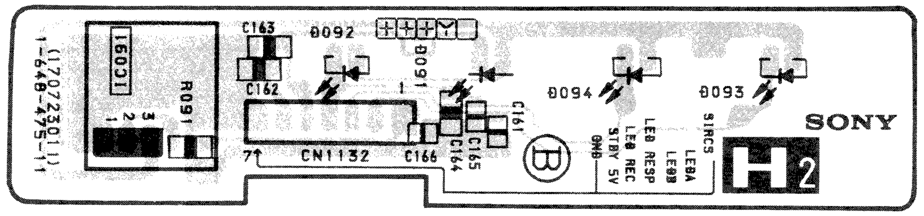

0
11
12
13
F663
C672
0.0047
250V
F
D663
D4SB60L-F
MAIN-RECT
269.8
C673
0.0047
250V
F
C674
220uF
400V
CN0925
6P
WHT
:VH
1 AC OUT
2 NC
3 NC
4 300V
5 NC
6 PRIM.GND
TO D BOARD
CN0525
1 DGC CHK
2 DGC CHK
CN0007
2P
WHT
:MINI
JW054
5MM
DGC
1 DGC
2 NC
3 DGC
CN0005
3P
WHT
:MINI
1 GND
CN0929
1P
WHT
:MINI
TO D BOARD
CN0529
D661
1SS133T
HIGH-VOLT
PROT
RY661
17.5V
R666
100
:FPRD
17.6
Q661
2SC2412K
RELAY-SW
C667
22
CN0924
3P
WHT
:S-MICRO
1 17.5V
2 GND
3 N.C.
TO D BOARD
CN0524
B-SS4536<AEP>-F2.

H1 [CONTROL SW, AUDIO OUT Y-CHROMA OUT, HEADPHONE] **H2** [SIRCS RECEIVE INDICATOR] **F2** [LINE FILTER, RELAY SW] **F1** [AC IN POWER SW]

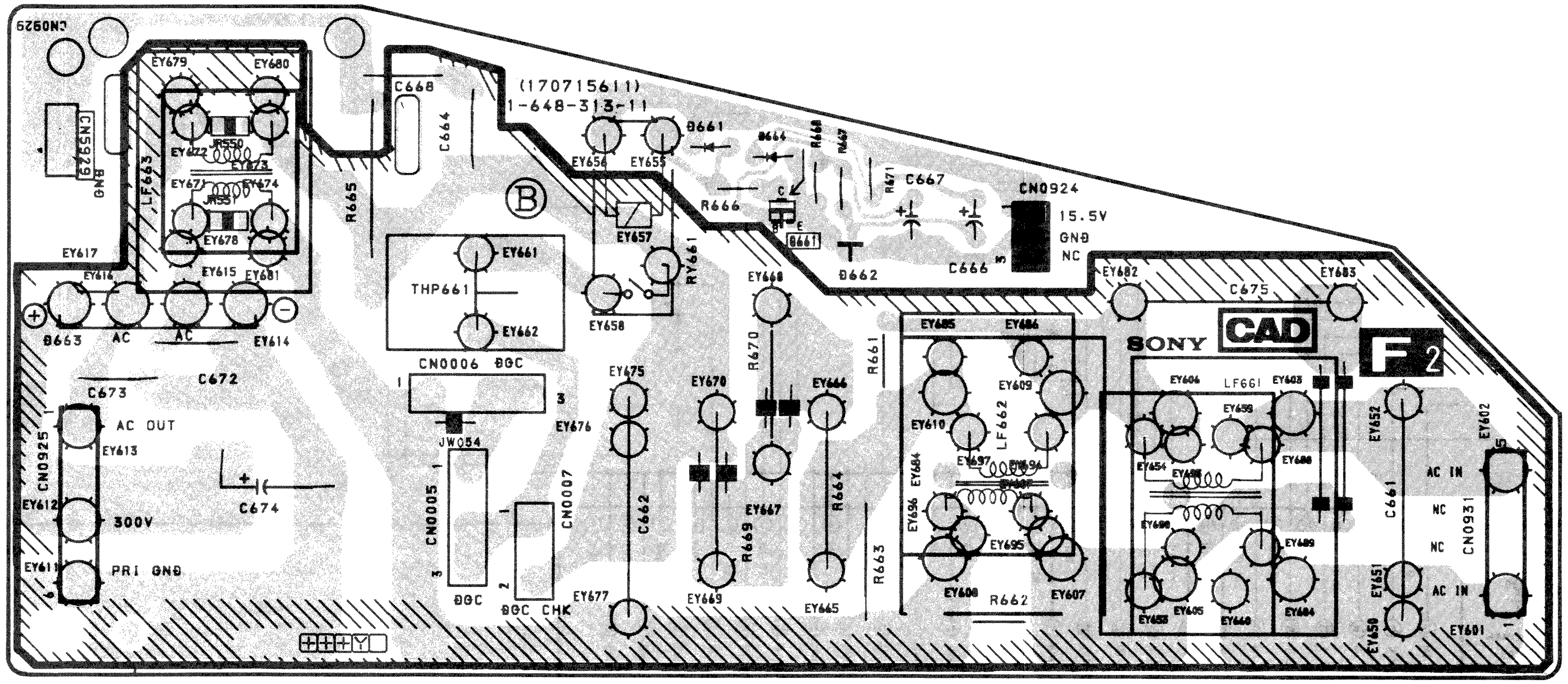
– H1 BOARD –


C084
Y/C-3
V
L
R
S081
S083
S082
J-81
J-82
HP
C085
C083
C082
R089
R084
R085
C081
C085
MODE
+
−
CAD
SONY
R081
R083
R082
AV-3
(170715611)
1-648-314-11
L082
L081
CN1008
H1

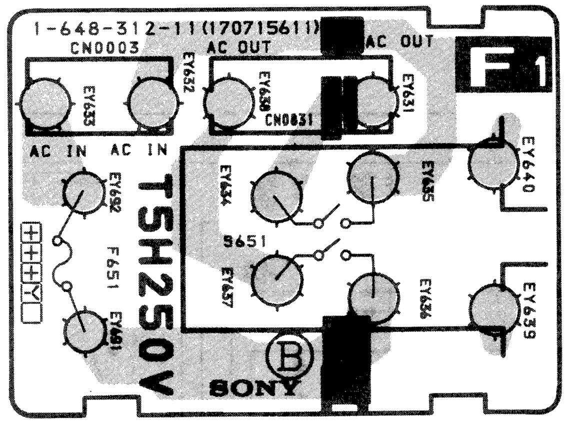
– H2 BOARD –


(170723011)
1-648-475-11
IC091
R091
C163
C162
D092
D091
C161
D094
D093
CN1132
C166
C164
C165
SIRCS
LEDA
LEDB
LED REC
STBY 5V
GND
SONY
H2

– F2 BOARD –


CN0929
CN5929
GND
EY679
EY680
LF663
C668
C664
(170715611)
1-648-313-11
D661
D664
R668
R667
R671
C667
CN0924
15.5V
GND
NC
EY656
EY655
R666
Q661
D662
C666
R665
RY661
EY657
EY617
EY616
EY615
EY681
THP661
EY661
EY662
EY658
EY668
EY682
C675
EY683
D663
AC
AC
EY614
CN0006 DGC
SONY
CAD
F2
C673
C672
AC OUT
EY613
CN0925
EY612
300V
EY611
PRI GND
C674
JW054
CN0005
CN0007
DGC
DGC CHK
EY675
EY676
EY677
C662
EY670
R670
EY667
R669
EY669
EY666
R664
EY665
R661
R663
EY685
EY686
EY609
EY610
LF662
EY696
EY695
EY608
R662
EY607
EY606
LF661
EY603
EY659
EY654
EY688
EY690
EY689
EY653
EY605
EY660
EY604
EY652
C661
EY651
EY650
EY602
AC IN
NC
NC
AC IN
CN0931
EY601

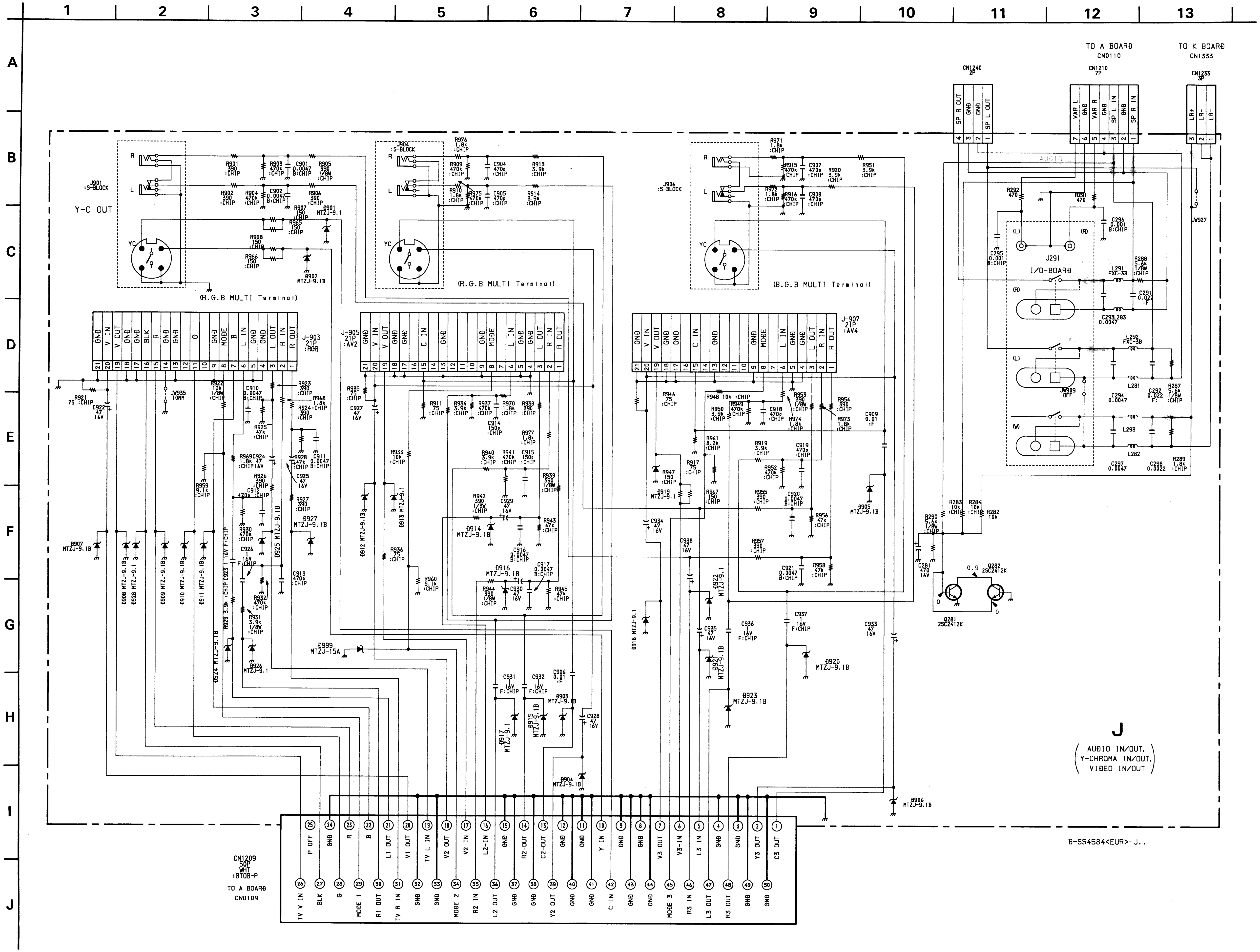
– F1 BOARD –


1-648-312-11(170715611)
CN0003
AC OUT
AC OUT
F1
EY632
EY633
EY630
CN0831
EY631
AC IN
AC IN
EY640
EY692
EY634
EY635
T5H250V
F651
S651
EY637
EY636
EY639
EY691
SONY

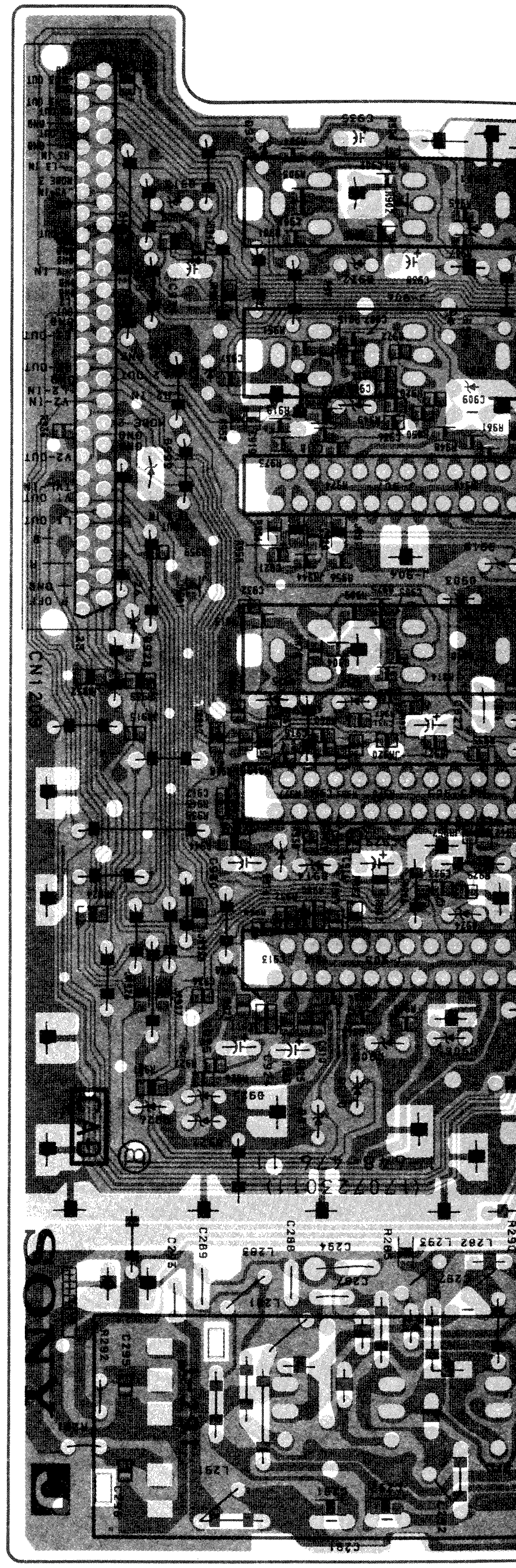
Schematic diagrams
← F1 F2 H1 H2 boards

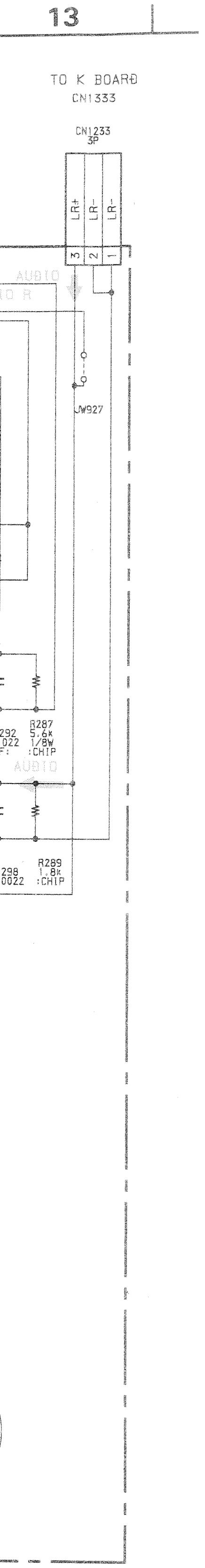
Schematic diagrams
J boards →

J [AUDIO IN/OUT VIDEO IN/OUT] **A** [TUNER, AU AV SW, R.C


1 2 3 4 5 6 7 8 9 10 11 12 13
A B C D E F G H I J
TO A BOARD CN0110
TO K BOARD CN1333
CN1240 2P
CN1210 7P
CN1233 3P
SP R OUT
GND
SP L OUT
VAR L
VAR R
SP L IN
SP R IN
LR+
LR-
J901 :S-BLOCK
Y-C OUT
(R.G.B MULTI Terminal)
J904 :S-BLOCK
J906 :S-BLOCK
(B.G.B MULTI Terminal)
J-903 21P :RGB
J-905 21P :AV2
J-907 21P :AV4
J291
I/O-BOARD
CN1209 50P WHT :BTOB-P
TO A BOARD CN0109
J
AUDIO IN/OUT, Y-CHROMA IN/OUT, VIDEO IN/OUT
B-SS4584<EUR>-J..

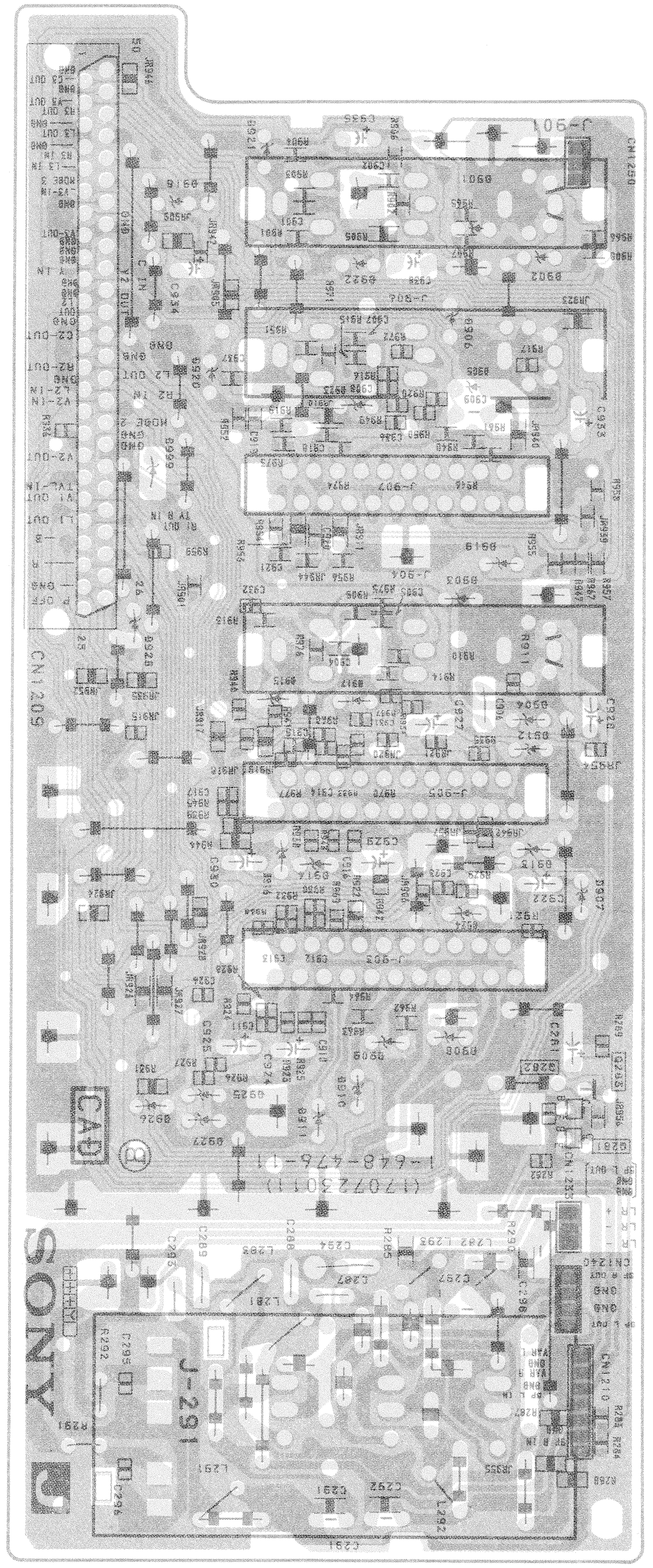
- J BOARD -




13
TO K BOARD
CN1333
CN1233
3P
LR+
LR-
AUDIO
AUDIO

J [AUDIO IN/OUT
VIDEO IN/OUT] **A** [TUNER, AUDIO, CONTROL, AUDIO AMP,
AV SW, R.G.B JUNGLE, Y/C PROCESSOR]

– J BOARD –

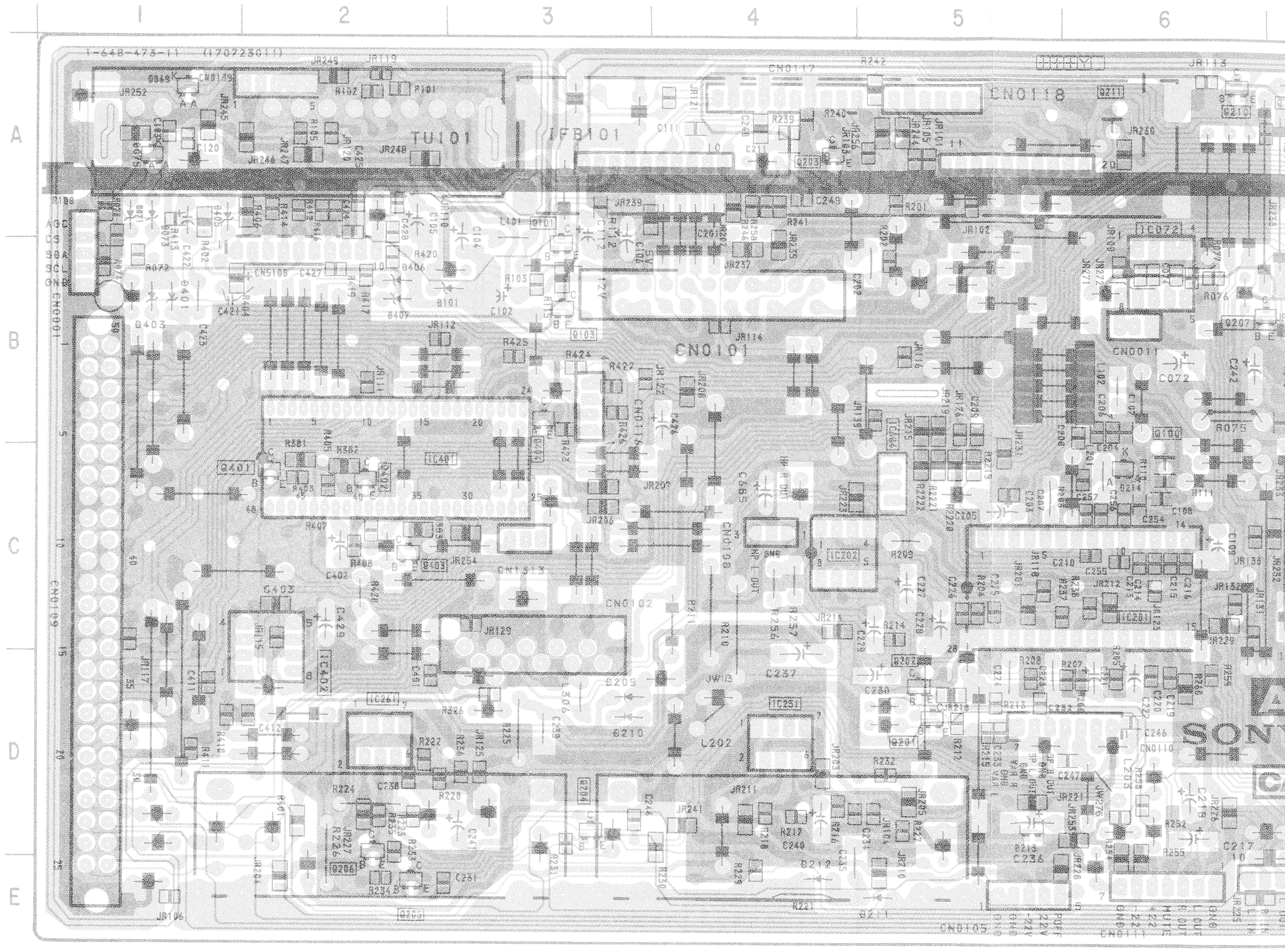

CN1209
J-291
SONY
1-648-476-11
(1707230I1)
CN1210
CN1240
CAD

IC	
IC072	B – 6
IC201	C – 6
IC202	C – 4
IC251	D – 4
IC261	D – 2
IC301	A – 8
IC302	A – 10
IC304	C – 10
IC401	C – 2
IC402	D – 2
IC681	D – 9
IC684	C – 4
IC685	E – 8

TRANSISTOR	
Q071	D – 8
Q101	A – 3
Q102	A – 7
Q103	A – 3
Q201	D – 5
Q202	D – 5
Q203	A – 4
Q204	D – 3
Q205	E – 2
Q206	D – 2
Q207	B – 6
Q209	E – 7
Q210	A – 6
Q301	A – 7
Q302	B – 7
Q303	D – 10
Q304	D – 10
Q305	A – 8
Q306	D – 10
Q308	C – 9
Q309	C – 9
Q311	C – 8
Q312	C – 8
Q313	B – 8
Q314	C – 7
Q315	D – 7
Q401	C – 2
Q402	C – 2
Q403	C – 2
Q404	B – 3
Q581	B – 9
Q582	B – 9
Q610	E – 9
Q681	E – 7
Q682	D – 9

DIODE	
D068	B – 7
D069	A – 1
D071	A – 1
D073	A – 1
D075	A – 1
D077	B – 7
D078	B – 7
D079	B – 7
D101	B – 2
D206	D – 7
D207	E – 7
D208	D – 7
D209	D – 3
D210	D – 3
D211	E – 5
D212	E – 4
D213	D – 5
D214	C – 6
D301	B – 9
D302	A – 9
D304	B – 10
D305	C – 9
D306	D – 10
D307	D – 10
D308	D – 10
D311	C – 9
D312	C – 8
D313	C – 7
D381	C – 8
D401	B – 1
D403	B – 1
D405	A – 1
D406	B – 2
D407	B – 2
D571	B – 9
D681	E – 8
D683	D – 9

– A BOARD –


1
2
3
4
5
6
A
B
C
D
E
1-648-475-11 (1707230I1)
TU101
IFB101
CN0117
CN0118
CN0101
CN0109
CN0102
CN0105
IC072
IC401
IC402
IC201
IC202
IC251
IC261
SONY

Note :

- ▨ : Pattern from the side which enables seeing.
- ■ : Pattern of the rear side.

AMP,
CESSOR]

IC
B – 6
C – 6
C – 4
D – 4
D – 2
A – 8
A – 10
C – 10
C – 2
D – 2
D – 9
C – 4
E – 8

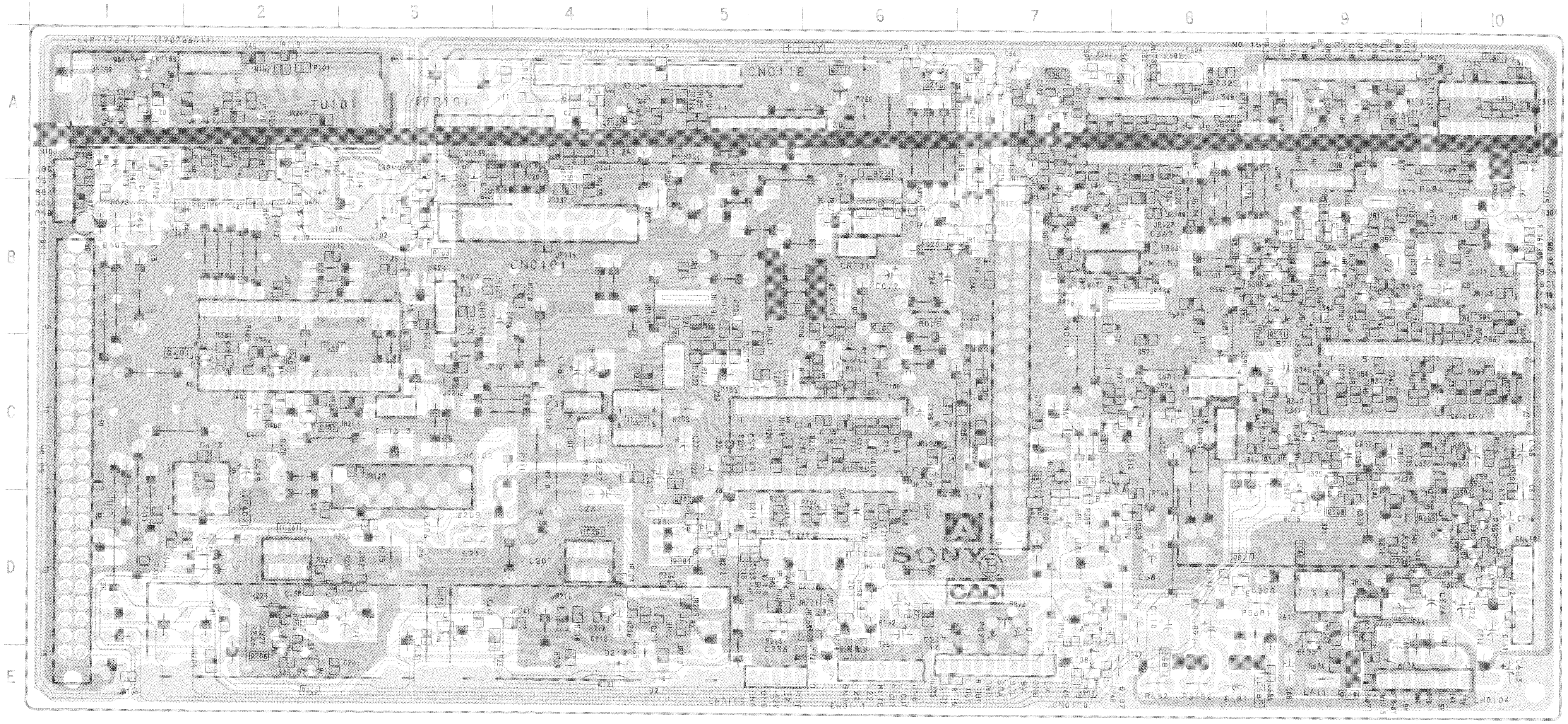
NSISTOR
D – 8
A – 3
A – 7
A – 3
D – 5
D – 5
A – 4
D – 3
E – 2
D – 2
B – 6
E – 7
A – 6
A – 7
B – 7
D – 10
D – 10
A – 8
D – 10
C – 9
C – 9
C – 8
C – 8
B – 8
C – 7
D – 7
C – 2
C – 2
C – 2

Q404	B – 3
Q581	B – 9
Q582	B – 9
Q610	E – 9
Q681	E – 7
Q682	D – 9

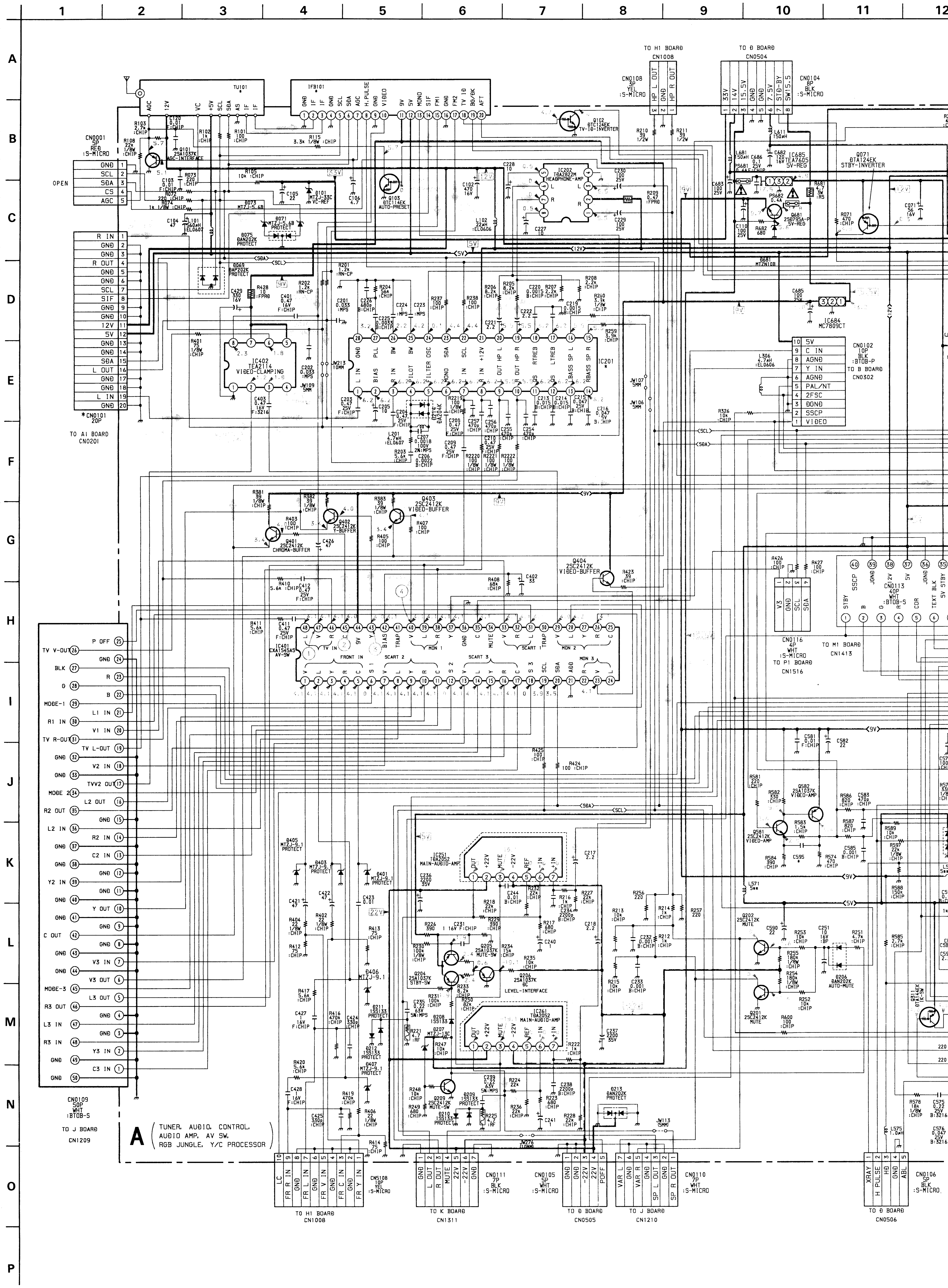
DIODE	
D068	B – 7
D069	A – 1
D071	A – 1
D073	A – 1
D075	A – 1
D077	B – 7
D078	B – 7
D079	B – 7
D101	B – 2
D206	D – 7
D207	E – 7
D208	D – 7
D209	D – 3
D210	D – 3
D211	E – 5
D212	E – 4
D213	D – 5
D214	C – 6
D301	B – 9
D302	A – 9
D304	B – 10
D305	C – 9
D306	D – 10
D307	D – 10
D308	D – 10
D311	C – 9
D312	C – 8
D313	C – 7
D381	C – 8
D401	B – 1
D403	B – 1
D405	A – 1
D406	B – 2
D407	B – 2
D571	B – 9
D681	E – 8
D683	D – 9

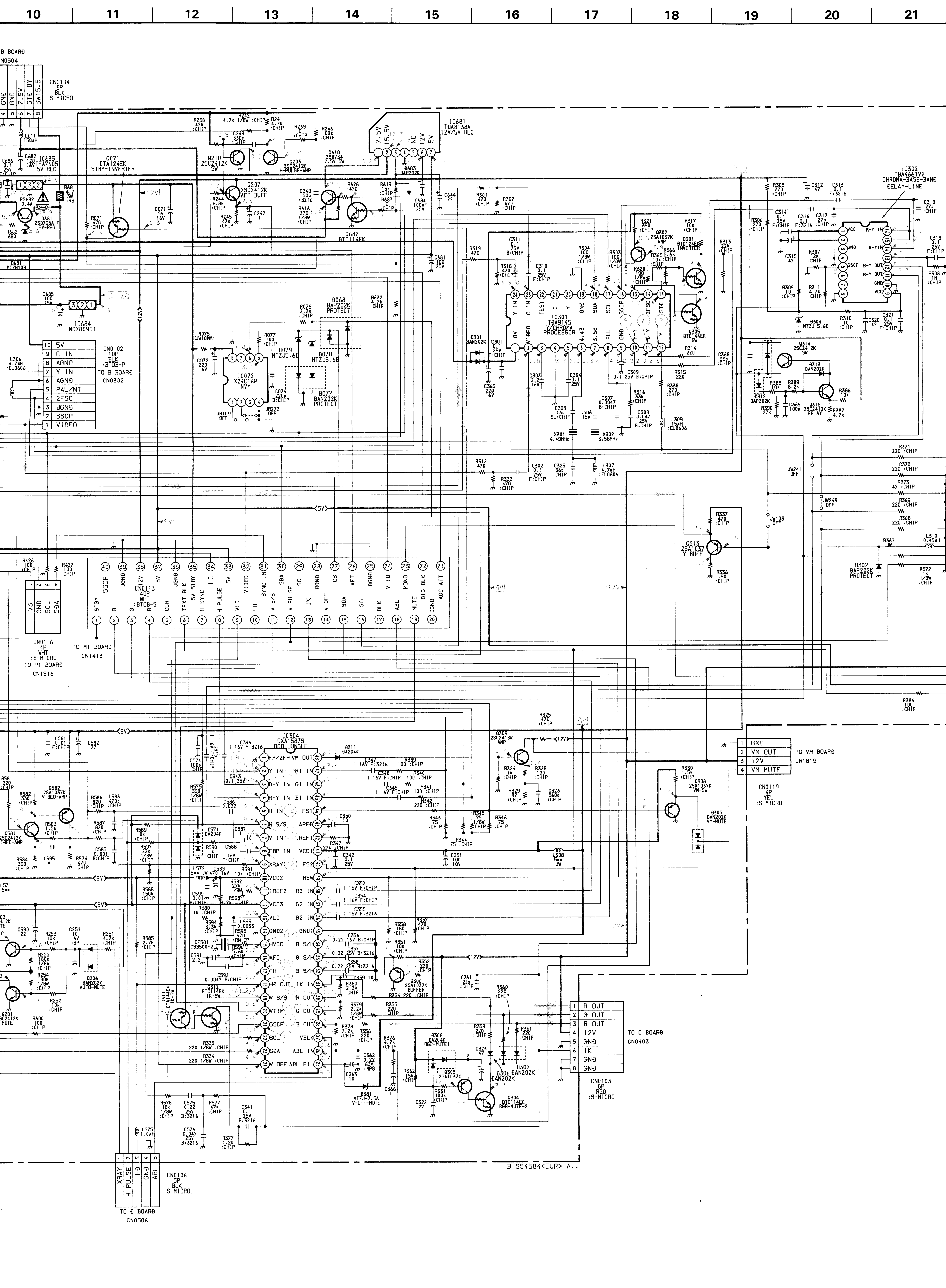
ttern from the side which enables seeing.
ttern of the rear side.

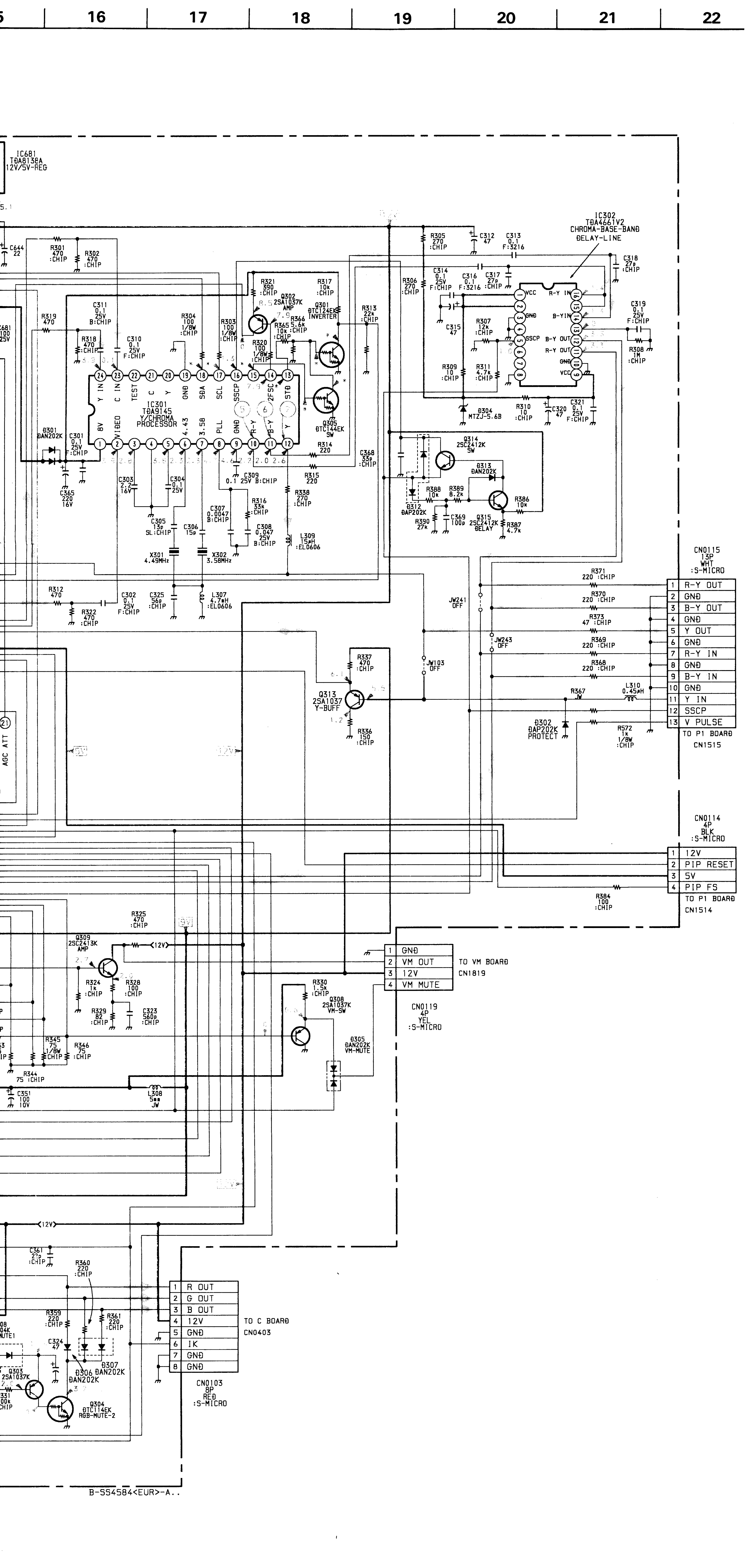
– A BOARD –


1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
1-648-473-11
TU101
IFB101
CN0101
CN0118
CN0111
CN0102
CN0109
CN0104
CN0105
CN0120
IC401
IC402
IC201
IC202
IC251
IC301
IC302
IC681
SONY
CAD

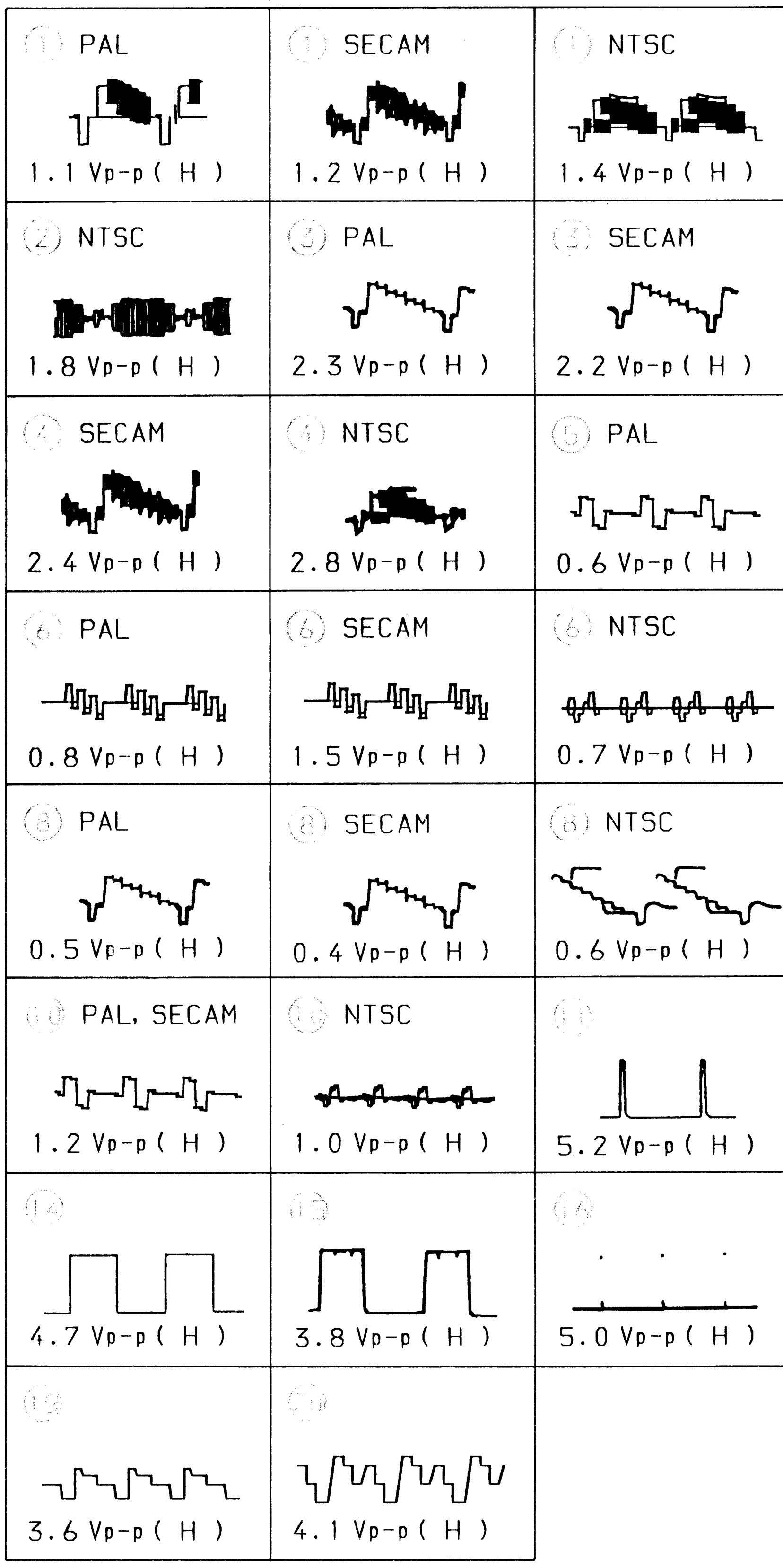
Note :
- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.


A
TUNER, AUDIO CONTROL, AUDIO AMP, AV SW, RGB JUNGLE, Y/C PROCESSOR
TU101
IFB101
Q101 2SA1037K AGC-INTERFACE
Q102 DTC124EK TV-ID-INVERTER
Q103 DTC114EK AUTO-PRESET
IC202 TDA2822M HEADPHONE-AMP
IC201
IC402 TEA2114 VIDEO-CLAMPING
IC401 CXA1545AS AV-SW
Q401 2SC2412K CHROMA-BUFFER
Q402 2SC2412K Y-BUFFER
Q403 2SC2412K VIDEO-BUFFER
Q404 2SC2412K VIDEO-BUFFER
IC251 TDA2052 MAIN-AUDIO-AMP
IC261 TDA2052 MAIN-AUDIO-AMP
Q204 2SA1037K STBY-SW
Q205 2SA1037K MUTE-SW
Q206 2SA1037K DC LEVEL-INTERFACE
Q209 2SC2412K MUTE-SW
Q201 2SC2412K MUTE
Q202 2SC2412K MUTE
D206 DAN202K AUTO-MUTE
Q581 2SC2412K VIDEO-AMP
Q582 2SA1037K VIDEO-AMP
IC685 TEA7605 5V-REG
IC684 MC7809CT
Q681 2SD795A-P 5V-REG
Q071 DTA124EK STBY-INVERTER
CN0001 5P RED :S-MICRO
OPEN
*CN0101 20P
TO A1 BOARD CN0201
CN0109 50P WHT :BTOB-S
TO J BOARD CN1209
TO H1 BOARD CN1008
TO D BOARD CN0504
CN0108 3P YEL :S-MICRO
CN0104 8P BLK :S-MICRO
CN0102 10P BLK :BTOB-P
TO B BOARD CN0302
CN0116 4P WHT :S-MICRO
TO P1 BOARD CN1516
CN0113 40P WHT :BTOB-S
TO M1 BOARD CN1413
CN5108 10P YEL :S-MICRO
TO H1 BOARD CN1008
CN0111 7P BLK :S-MICRO
TO K BOARD CN1311
CN0105 5P WHT :S-MICRO
TO D BOARD CN0505
CN0110 7P WHT :S-MICRO
TO J BOARD CN1210
CN0106 5P BLK :S-MICRO
TO D BOARD CN0506
1 2 3 4 5 6 7 8 9 10 11 12
A B C D E F G H I J K L M N O P


10
11
12
13
14
15
16
17
18
19
20
21
TO D BOARD CN0504
GND
GND
7.5V
STD-BY
SW15.5
CN0104 8P BLK :S-MICRO
IC681 TDA8138A 12V/5V-REG
7.5V
15.5V
NC
12V
5V
IC685 TEA7605 5V-REG
Q071 DTA124EK STBY-INVERTER
Q210 2SC2412K SW
Q203 2SC2412K H-PULSE-AMP
Q610 2SB734 7.5V-SW
D683 DAP202K
Q207 2SC2412K AFT-BUFF
Q682 DTC114EK
PS682 0.4A
Q681 2SB795A-P 5V-REG
D681 MTZN10B
IC684 MC7809CT
CN0102 10P BLK :BTOB-P TO B BOARD CN0302
5V
C IN
AGND
Y IN
AGND
PAL/NT
2FSC
DGND
SSCP
VIDEO
D068 DAP202K PROTECT
D079 MTZJ5.6B
D078 MTZJ5.6B
D077 DAN202K PROTECT
IC072 X24C16P NVM
IC301 TDA9145 Y/CHROMA PROCESSOR
Q302 2SA1037K AMP
Q301 DTC124EK INVERTER
Q305 DTC144EK SW
D301 DAN202K
X301 4.43MHz
X302 3.58MHz
L309 15μH :EL0606
L307 4.7μH :EL0606
IC302 TDA4661V2 CHROMA-BASE-BAND DELAY-LINE
D304 MTZJ-5.6B
Q314 2SC2412K SW
D313 DAN202K
D312 DAP202K
Q315 2SC2412K DELAY
Q313 2SA1037 Y-BUFF
D302 DAP202K PROTECT
L310 0.45μH
CN0113 40P WHT :BTOB-S
STBY
B
G
R
COR
TEXT BLK
H SYNC
H PULSE
VLC
FH
V S/S
V PULSE
IK
V OFF
SDA
SCL
BLK
ABL
MUTE
DGND
SSCP
JGND
12V
5V
JGND
5V STBY
LC
5V
VIDEO
SYNC IN
SDA
SCL
DGND
CS
AFT
DGND
TV ID
MONO
BIG BLK
AGC ATT
CN0116 4P WHT :S-MICRO TO P1 BOARD CN1516
V3
GND
SCL
SDA
TO M1 BOARD CN1413
IC304 CXA1587S RGB-JUNGLE
D311 DA204K
Q309 2SC2413K AMP
Q582 2SA1037K VIDEO-AMP
Q581 2SC2412K VIDEO-AMP
D571 DA204K
CF581 CSB500F2
Q312 DTC114EK IK-SW
Q311 DTA144EK IK-SW
Q306 2SA1037K BUFFER
D381 MTZJ-7.5A V-OFF-MUTE
D308 DA204K RGB-MUTE1
Q303 2SA1037K
Q304 DTC114EK RGB-MUTE-2
D306 DAN202K
D307 DAN202K
D206 DAN202K AUTO-MUTE
Q201 2SC2412K MUTE
Q308 2SA1037K VM-SW
D305 DAN202K VM-MUTE
GND
VM OUT
12V
VM MUTE
TO VM BOARD CN1819
CN0119 4P YEL :S-MICRO
R OUT
G OUT
B OUT
12V
GND
IK
GND
GND
TO C BOARD CN0403
CN0103 8P RED :S-MICRO
XRAY
H PULSE
HD
GND
ABL
CN0106 5P BLK :S-MICRO
TO D BOARD CN0506
B-SS4584<EUR>-A..


16
17
18
19
20
21
22
IC681 TDA8138A 12V/5V-REG
IC302 TDA4661V2 CHROMA-BASE-BAND DELAY-LINE
IC301 TDA9145 Y/CHROMA PROCESSOR
Q302 2SA1037K AMP
Q301 DTC124EK INVERTER
Q305 DTC144EK SW
Q314 2SC2412K SW
Q313 DAN202K
Q312 DAP202K
Q315 2SC2412K DELAY
D304 MTZJ-5.6B
X301 4.43MHz
X302 3.58MHz
L309 15μH :EL0606
L307 4.7μH :EL0606
Q313 2SA1037 Y-BUFF
D302 DAP202K PROTECT
AGC ATT
CN0115 13P WHT :S-MICRO
1 R-Y OUT
2 GND
3 B-Y OUT
4 GND
5 Y OUT
6 GND
7 R-Y IN
8 GND
9 B-Y IN
10 GND
11 Y IN
12 SSCP
13 V PULSE
TO P1 BOARD CN1515
CN0114 4P BLK :S-MICRO
1 12V
2 PIP RESET
3 5V
4 PIP FS
TO P1 BOARD CN1514
Q309 2SC2413K AMP
1 GND
2 VM OUT
3 12V
4 VM MUTE
TO VM BOARD CN1819
CN0119 4P YEL :S-MICRO
Q308 2SA1037K VM-SW
D305 DAN202K VM-MUTE
1 R OUT
2 G OUT
3 B OUT
4 12V
5 GND
6 IK
7 GND
8 GND
TO C BOARD CN0403
CN0103 8P RED :S-MICRO
Q303 2SA1037K
D306 DAN202K
D307 DAN202K
Q304 DTC114EK RGB-MUTE-2
B-SS4584<EUR>-A..

• WAVEFORMS A BOARD



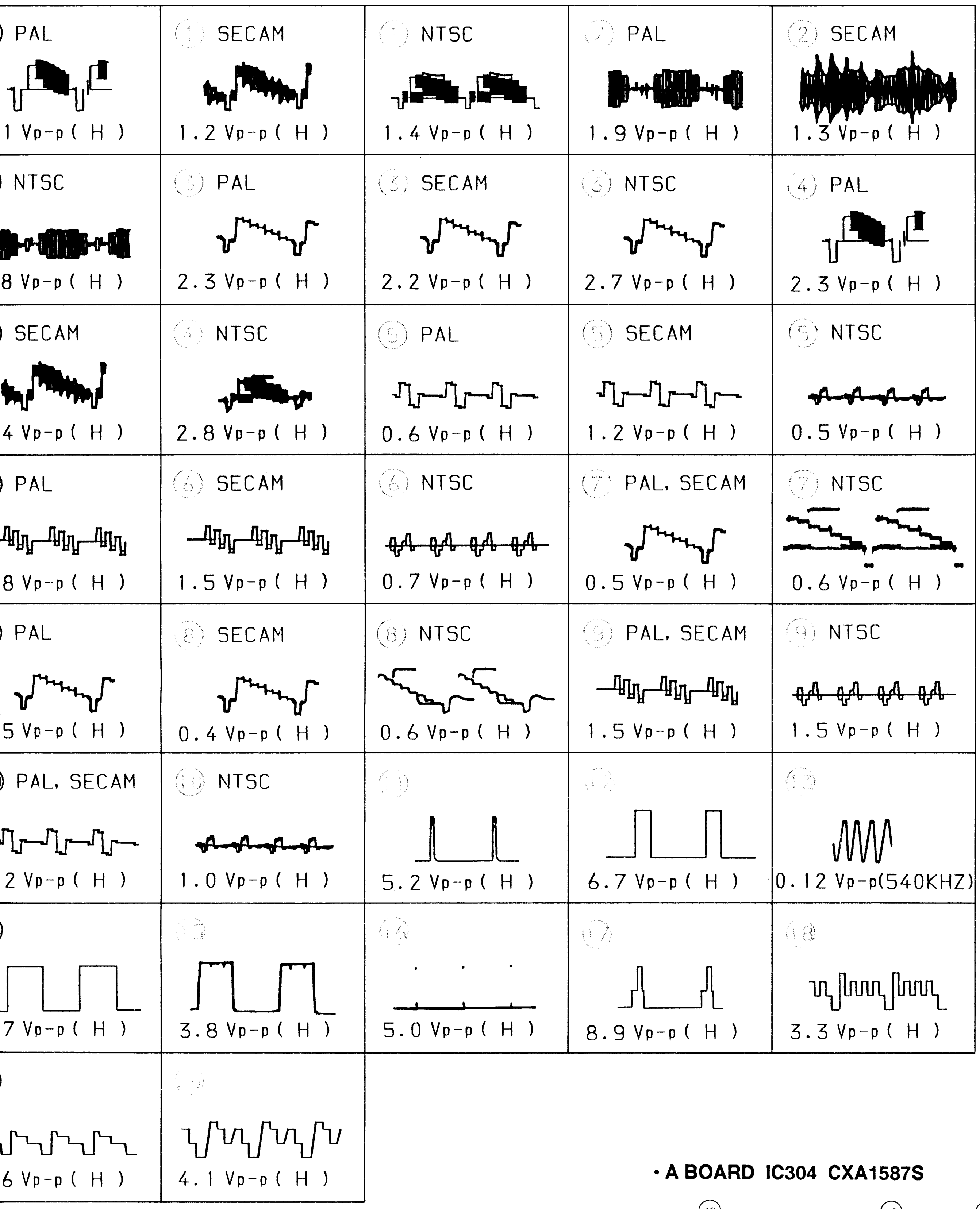
As to the voltage value shown by the mark [illegible] on the Schematic Diagram, see the another [illegible]

A BOARD

A BOARD ∗ MARK

Model	Italian	French	AEP	Spanish	UK
C595	–	–	–	47PF/50V	47PF/
CN0101	–	–	–	20P	20
IC201	TDA6612	TDA6612	TDA6612	TDA6612	TDA6
IFB101	IFH-389	IFH-389F	IFH-389	IFH-389	IFH-3
TU101	UV916H	BTP-EC411	UV916H	UV916H	UV94

AVEFORMS A BOARD



to the voltage [illegible] shown by
mark [illegible] on the schematic
gram. [illegible]

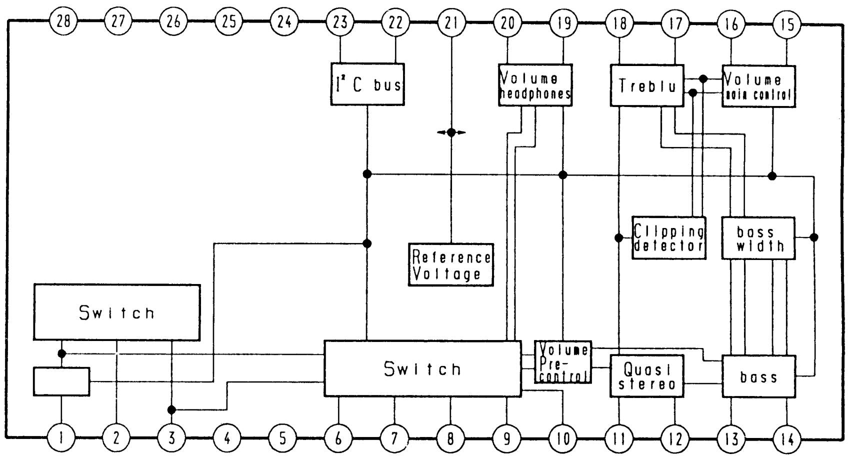
OARD

[illegible]

OARD ∗ MARK

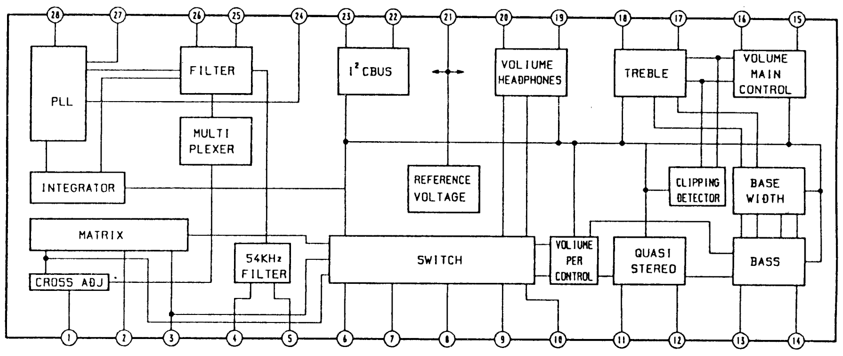
odel	Italian	French	AEP	Spanish	UK
5	–	–	–	47PF／50V	47PF／50V
101	–	–	–	20P	20P
01	TDA6612	TDA6612	TDA6612	TDA6612	TDA6622
01	IFH-389	IFH-389F	IFH-389	IFH-389	IFH-395
01	UV916H	BTP-EC411	UV916H	UV916H	UV944C

• A BOARD IC201 TDA6622 (UK Model only)



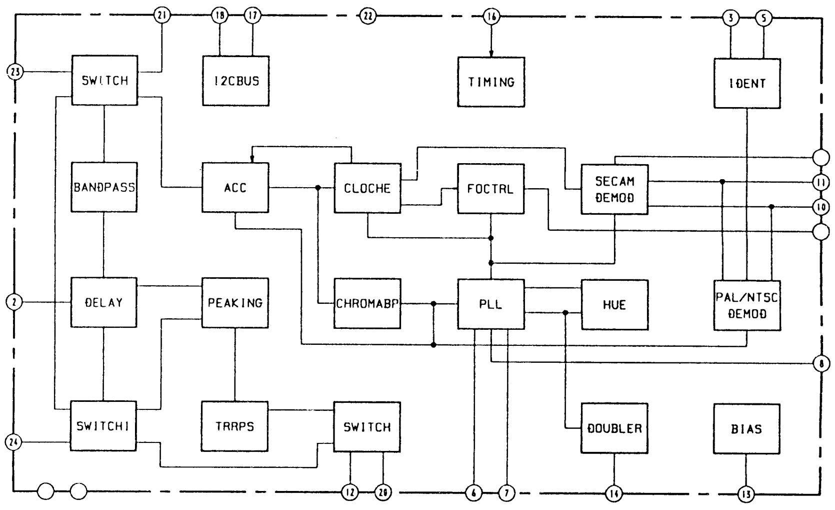
28
27
26
25
24
23
22
21
20
19
18
17
16
15
I²C bus
Volume headphones
Treblu
Volume main control
Reference Voltage
Clipping detector
bass width
Switch
Switch
Volume Pre-control
Quasi stereo
bass
1
2
3
4
5
6
7
8
9
10
11
12
13
14

• A BOARD IC201 TDA6612



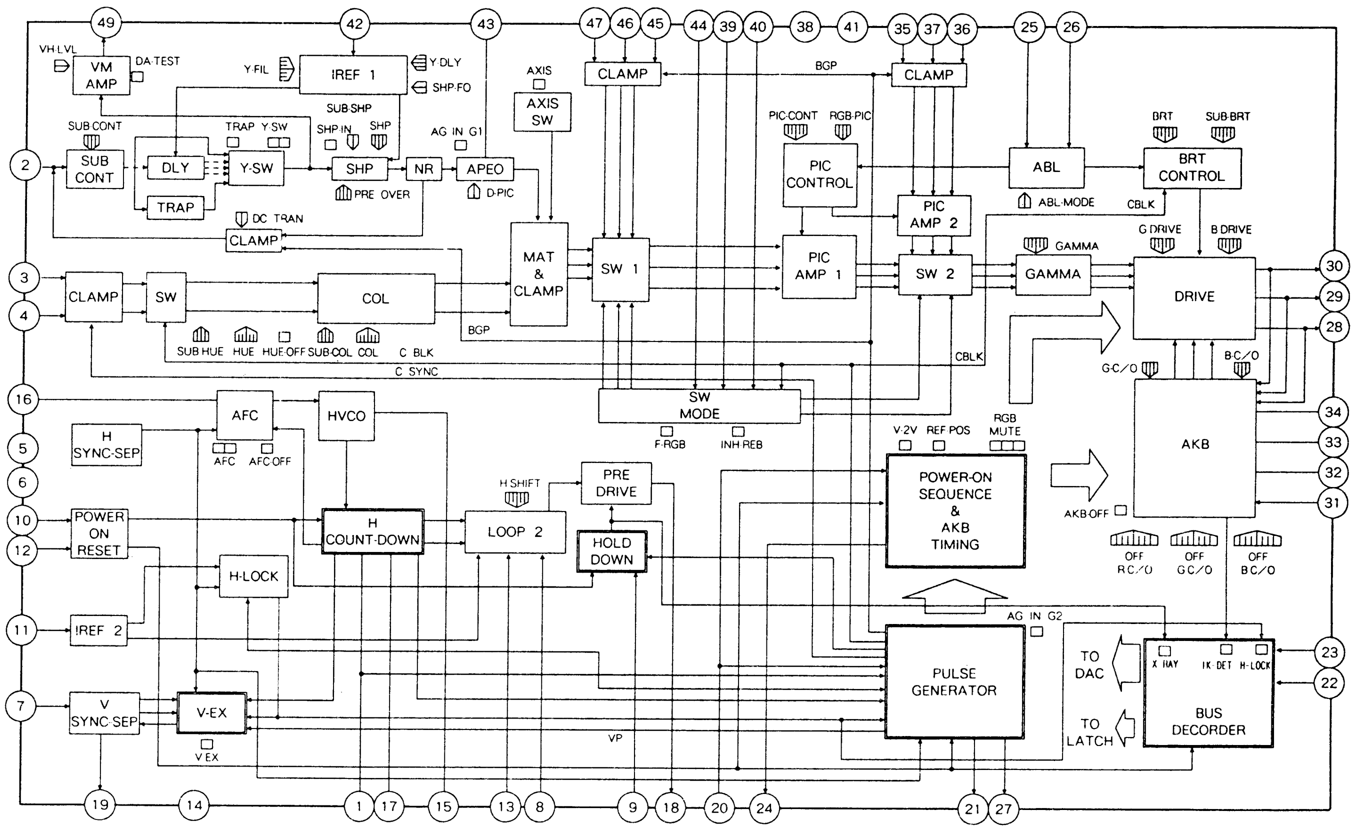
28
27
26
25
24
23
22
21
20
19
18
17
16
15
PLL
FILTER
MULTI PLEXER
I²CBUS
VOLUME HEADPHONES
TREBLE
VOLUME MAIN CONTROL
INTEGRATOR
REFERENCE VOLTAGE
CLIPPING DETECTOR
BASE WIDTH
MATRIX
CROSS ADJ
54KHz FILTER
SWITCH
VOLUME PER CONTROL
QUASI STEREO
BASS
1
2
3
4
5
6
7
8
9
10
11
12
13
14

• A BOARD IC301 TDA9145



21
18
17
22
14
3
5
23
SWITCH
I2CBUS
TIMING
IDENT
BANDPASS
ACC
CLOCHE
FOCTRL
SECAM DEMOD
2
DELAY
PEAKING
CHROMABP
PLL
HUE
PAL/NTSC DEMOD
8
24
SWITCHI
TRAPS
SWITCH
DOUBLER
BIAS
12
20
6
7
16
13

• A BOARD IC304 CXA1587S



49
42
43
47
46
45
44
39
40
38
41
35
37
36
25
26
VH-LVL
VM AMP
DA-TEST
Y-FIL
IREF 1
Y-DLY
SHP-FO
AXIS
AXIS SW
CLAMP
BGP
CLAMP
SUB-SHP
SHP-IN
SHP
SUB-CONT
TRAP
Y-SW
AG IN G1
PIC CONT
RGB-PIC
BRT
SUB-BRT
2
SUB CONT
DLY
Y-SW
SHP
NR
APEO
PIC CONTROL
ABL
BRT CONTROL
TRAP
PRE OVER
D-PIC
ABL MODE
CBLK
DC TRAN
CLAMP
PIC AMP 2
GAMMA
G DRIVE
B DRIVE
MAT & CLAMP
SW 1
PIC AMP 1
SW 2
GAMMA
DRIVE
3
4
CLAMP
SW
COL
30
29
28
SUB HUE
HUE
HUE OFF
SUB-COL
COL
C BLK
BGP
C SYNC
CBLK
G-C/O
BC/O
16
AFC
HVCO
SW MODE
F-RGB
INH-REB
RGB MUTE
V-2V
REF POS
34
33
32
31
5
6
H SYNC-SEP
AFC
AFC OFF
H SHIFT
PRE DRIVE
POWER-ON SEQUENCE & AKB TIMING
AKB
AKB OFF
10
12
POWER ON RESET
H COUNT-DOWN
LOOP 2
HOLD DOWN
OFF RC/O
OFF GC/O
OFF BC/O
H-LOCK
AG IN G2
11
IREF 2
PULSE GENERATOR
TO DAC
TO LATCH
X RAY
IK DET
H-LOCK
BUS DECORDER
23
22
7
V SYNC-SEP
V-EX
V EX
VP
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1
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13
8
9
18
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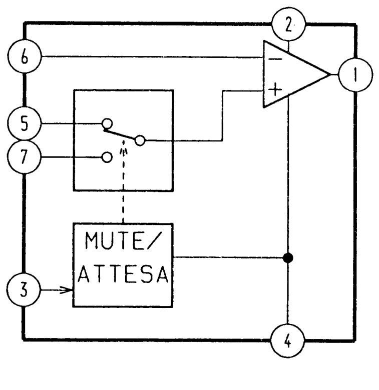
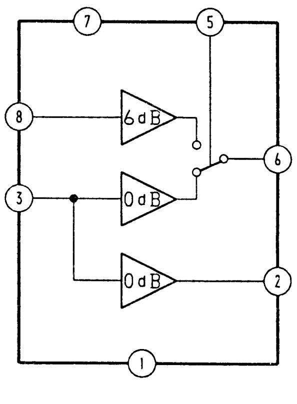
24
21
27

• A BOARD IC251/261 TDA2052



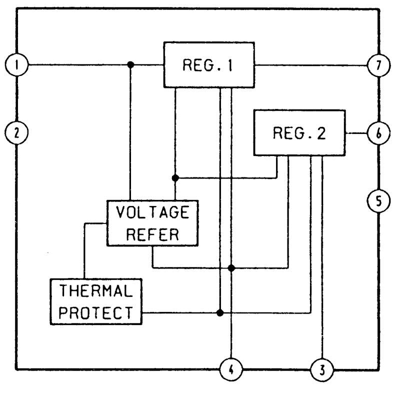
2
6
1
5
7
MUTE/ ATTESA
3
4

• A BOARD IC402 TEA2114



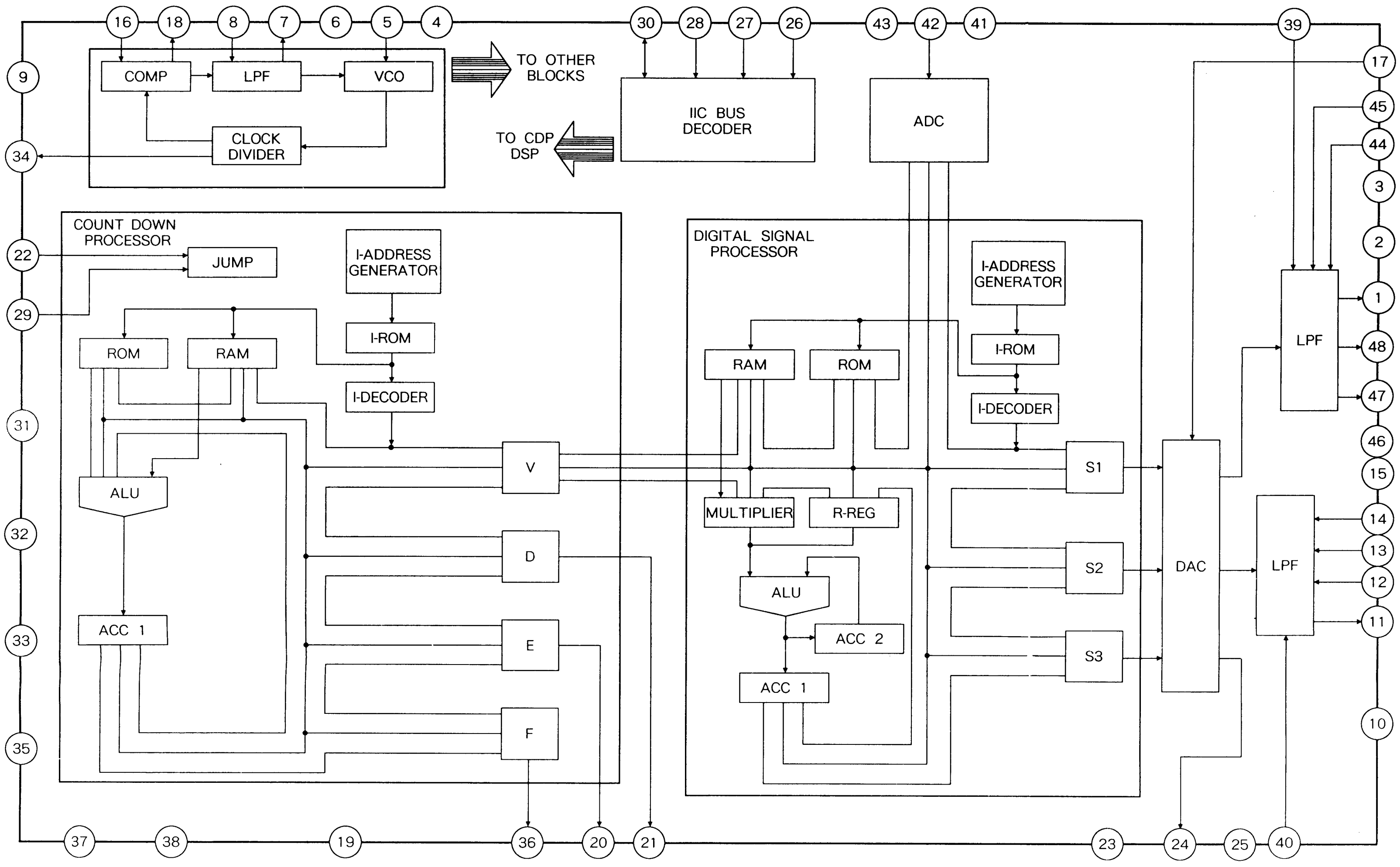
7
5
8
6dB
6
3
0dB
0dB
2
1

• A BOARD IC681 TDA8134A



1
REG. 1
7
2
REG. 2
6
5
VOLTAGE REFER
THERMAL PROTECT
4
3

• M1 BOARD IC561 CXD2018Q


COMP
LPF
VCO
CLOCK DIVIDER
TO OTHER BLOCKS
TO CDP DSP
IIC BUS DECODER
ADC
COUNT DOWN PROCESSOR
JUMP
I-ADDRESS GENERATOR
I-ROM
I-DECODER
ROM
RAM
ALU
ACC 1
V
D
E
F
DIGITAL SIGNAL PROCESSOR
RAM
ROM
I-ADDRESS GENERATOR
I-ROM
I-DECODER
MULTIPLIER
R-REG
ALU
ACC 2
ACC 1
S1
S2
S3
DAC
LPF
LPF
16
18
8
7
6
5
4
30
28
27
26
43
42
41
39
9
34
22
29
31
32
33
35
17
45
44
3
2
1
48
47
46
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14
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12
11
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37
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19
36
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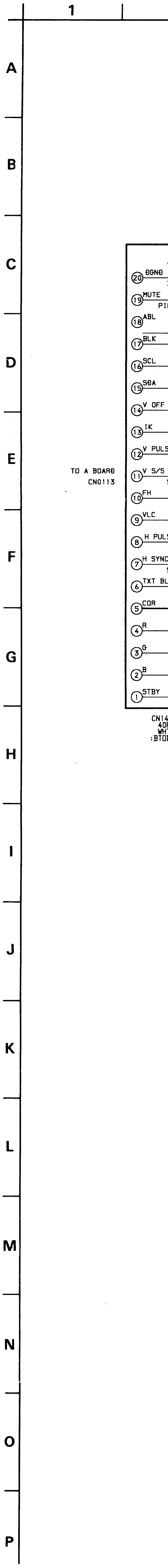
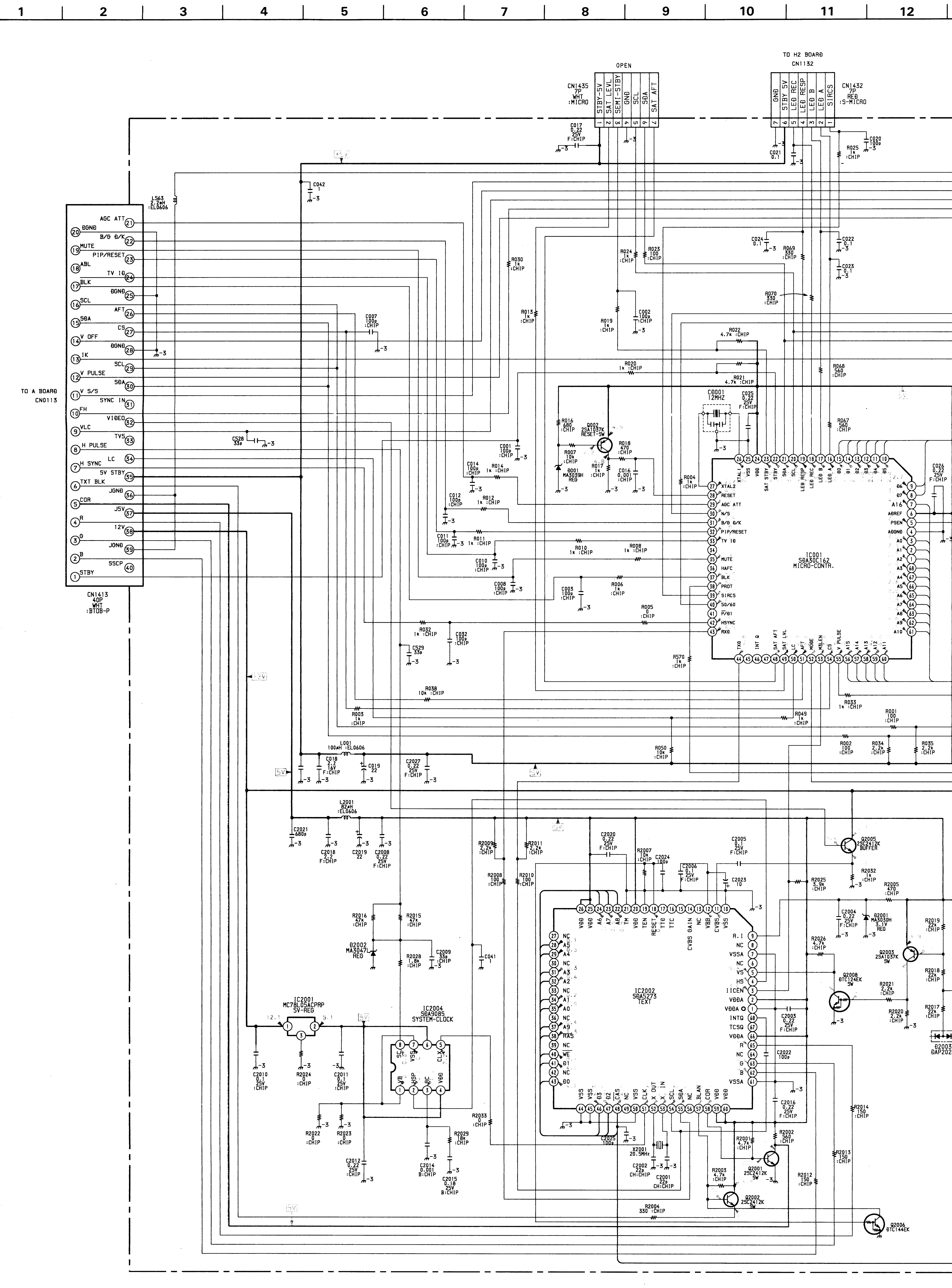
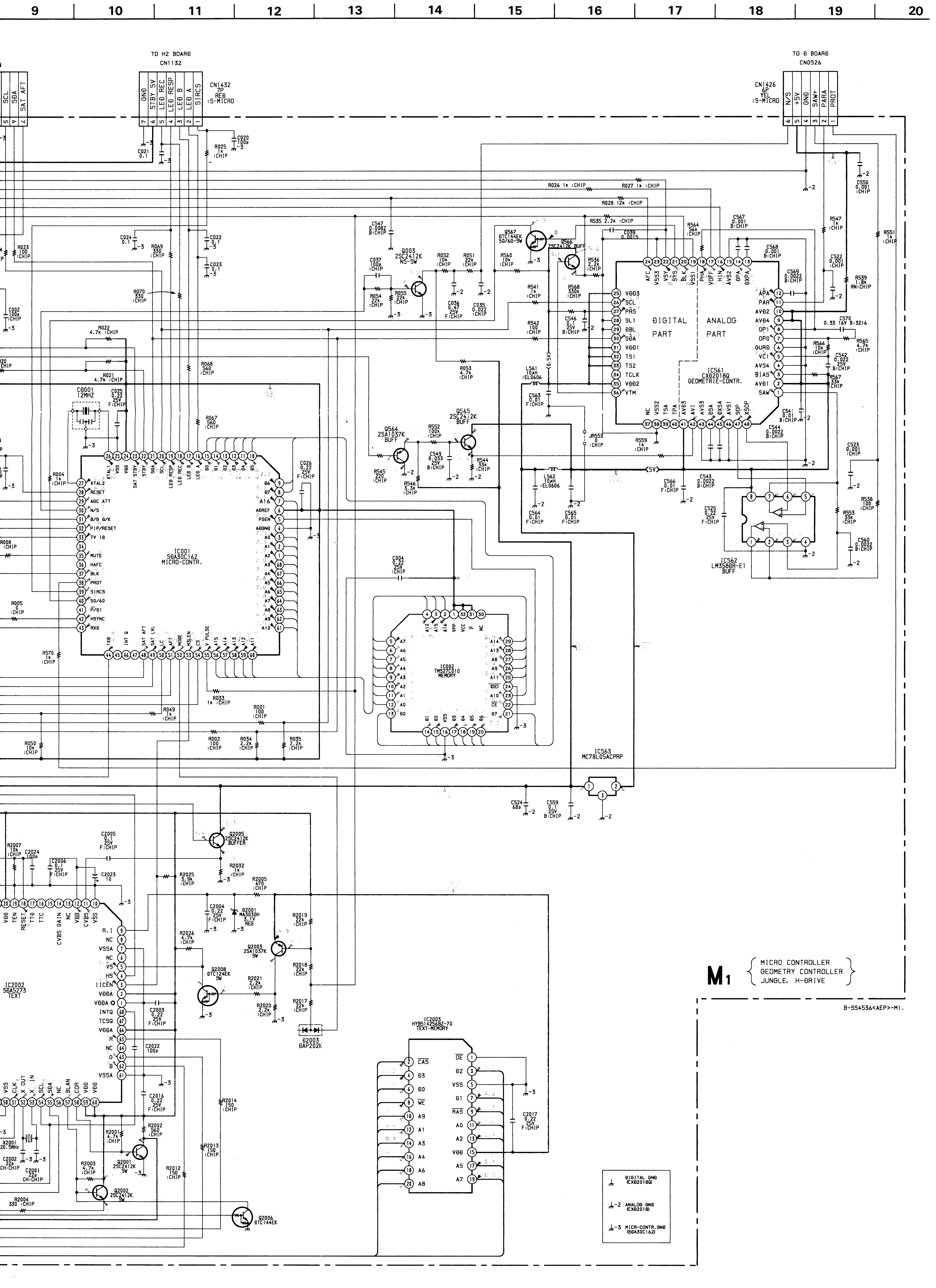
40


1
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
TO A BOARD
CN0113
20 BGND
19 MUTE
PI
18 ABL
17 BLK
16 SCL
15 SDA
14 V OFF
13 IK
12 V PULS
11 V S/S
10 FH
9 VLC
8 H PULS
7 H SYNC
6 TXT BL
5 COR
4 R
3 G
2 B
1 STBY
CN14
40P
WH
:BTO

58


1
2
3
4
5
6
7
8
9
10
11
12
OPEN
CN1435
7P
WHT
:MICRO
STBY-5V
SAT LEVL
SEMI-STBY
GND
SCL
SDA
SAT AFT
TO H2 BOARD
CN1132
GND
STBY 5V
LED REC
LED RESP
LED B
LED A
SIRCS
CN1432
7P
RED
:S-MICRO
TO A BOARD
CN0113
CN1413
40P
WHT
:BTOB-P
AGC ATT
DGND
B/G D/K
MUTE
PIP/RESET
ABL
TV ID
BLK
SCL
AFT
SDA
CS
V OFF
IK
V PULSE
V S/S
SYNC IN
FH
VIDEO
VLC
TVS
H PULSE
LC
H SYNC
5V STBY
TXT BLK
JGND
COR
J5V
R
12V
G
B
SSCP
STBY
L563
2.2mH
:EL0606
IC001
SDA30C162
MICRO-CONTR.
CD001
12MHZ
Q002
2SA1037K
RESET-SW
D001
MA3039H
REG
L001
100µH :EL0606
L2001
82µH
:EL0606
IC2001
MC78L05ACPRP
5V-REG
IC2004
SDA9085
SYSTEM-CLOCK
D2002
MA3047L
REG
IC2002
SDA5273
TEXT
X2001
20.5MHz
Q2005
2SC2412K
BUFFER
D2001
MA3030H
3.1V
REG
Q2003
2SA1037K
SW
Q2008
DTC124EK
SW
Q2001
2SC2412K
SW
Q2002
2SC2412K
SW
Q2006
DTC144EK
D2003
DAP202

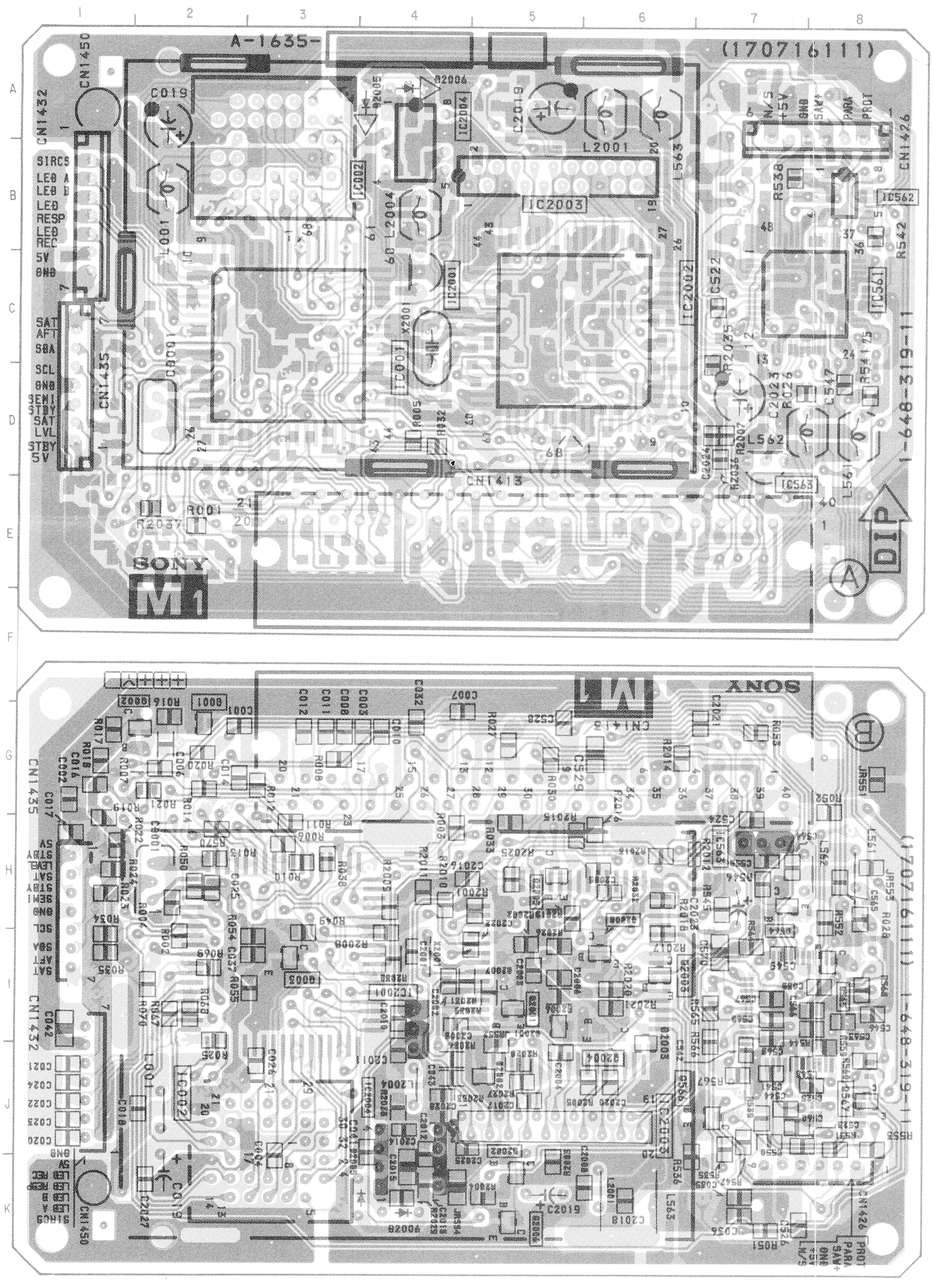


9
10
11
12
13
14
15
16
17
18
19
20
TO H2 BOARD CN1132
CN1432 7P RED :S-MICRO
GND
STBY 5V
LED REC
LED RESP
LED B
LED A
SIRCS
TO D BOARD CN0526
CN1426 6P YEL :S-MICRO
N/S
+5V
GND
SAW+
PARA
PROT
SCL
SDA
SAT AFT
IC001 SDA30C162 MICRO-CONTR.
CB001 12MHZ
IC002 TMS27C010 MEMORY
IC561 CXD2018Q GEOMETRIE-CONTR.
DIGITAL PART
ANALOG PART
IC562 LM358DR-E1 BUFF
IC563 MC78L05ACPRP
IC2002 SDA5273 TEXT
IC2003 HYB514256BZ-70 TEXT-MEMORY
Q003 2SC2412K NS-SW
Q564 2SA1037K BUFF
Q565 2SC2412K BUFF
Q566 2SC2412K BUFF
Q567 DTC144EK 50/60-SW
Q2001 2SC2412K SW
Q2002 2SC2412K SW
Q2003 2SA1037K SW
Q2005 2SC2412K BUFFER
Q2006 DTC144EK
Q2008 DTC124EK SW
D2001 MA3030H 3.1V REG
D2003 DAP202K
X2001 20.5MHz
L561 10μH :EL0606
L562 10μH :EL0606
<5V>
DIGITAL GND (CXD2018Q)
-2 ANALOG GND (CXD2018Q)
-3 MICR-CONTR.GND (SDA30C162)

M₁ MICRO CONTROLLER
GEOMETRY CONTROLLER
JUNGLE, H-DRIVE

B-SS4536<AEP>-M1.

– M1 BOARD –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A-1635-
(170716111)
1-648-319-11
CN1450
CN1432
CN1435
CN1413
CN1426
SONY
M1
DIP
A
B

IC	
IC001	C – 3
IC002	B – 3, J – 3
IC561	C – 8
IC562	B – 8
IC563	D – 7, H – 7
IC2001	C – 4, I – 4
IC2002	C – 6
IC2003	B – 5, J – 6
IC2004	A – 4, J – 4

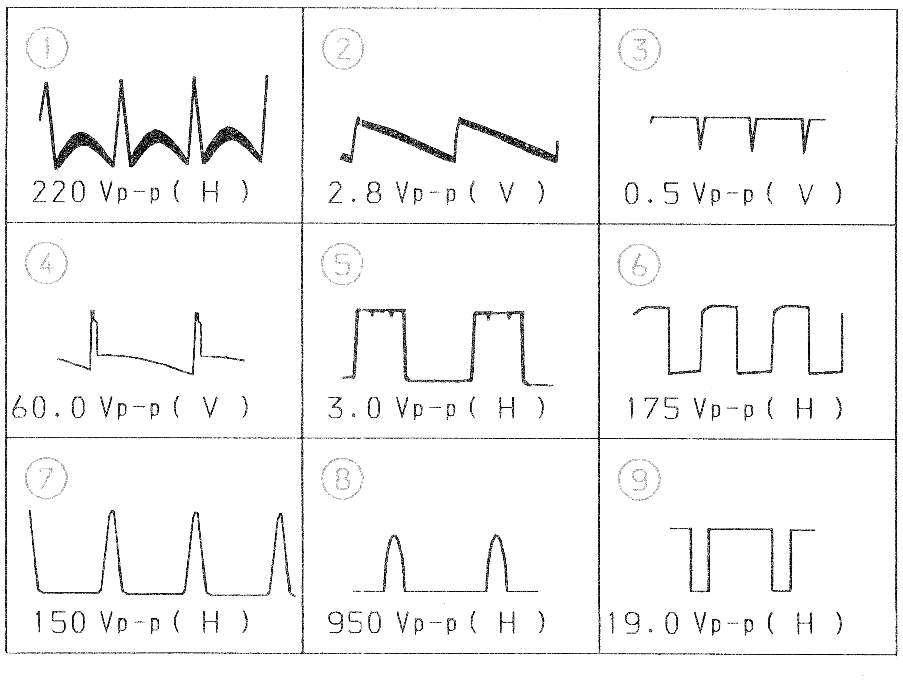
TRANSISTOR	
Q002	G – 2
Q003	I – 3
Q564	H – 7
Q565	I – 8
Q566	J – 7
Q567	J – 8
Q2001	I – 5
Q2002	J – 5
Q2003	I – 6
Q2005	H – 5
Q2006	K – 5
Q2008	I – 6

DIODE	
D001	G – 2
D2001	I – 5
D2002	J – 5
D2003	I – 6

Note :

- ▨ : Pattern from the side which enables seeing.
- ▩ : Pattern of the rear side.

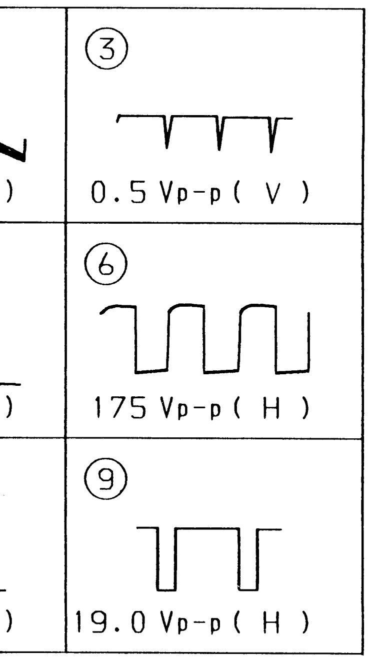
• WAVEFORMS D BOARD



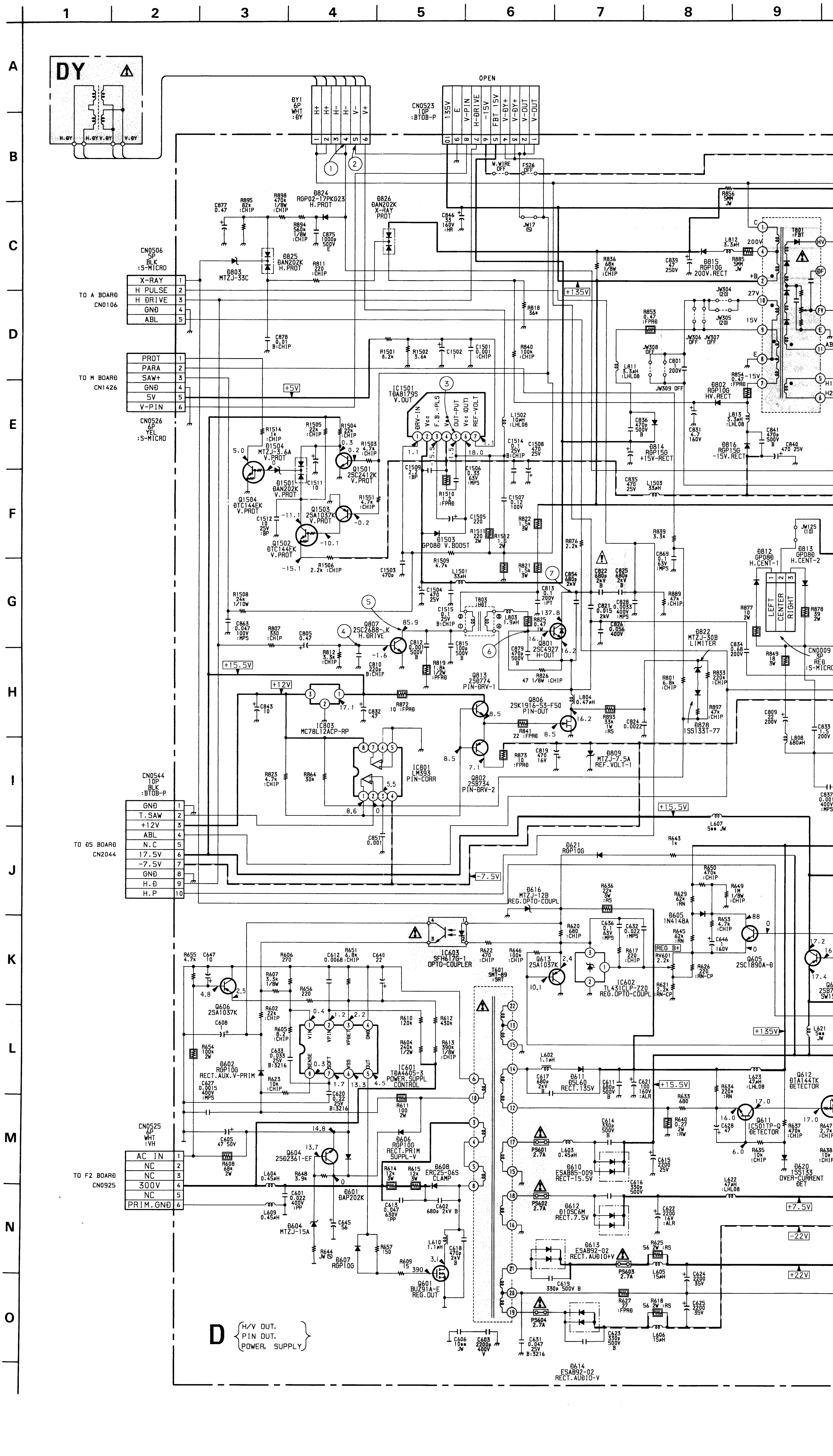
IC	
IC001	C－3
IC002	B－3, J－3
IC561	C－8
IC562	B－8
IC563	D－7, H－7
IC2001	C－4, I－4
IC2002	C－6
IC2003	B－5, J－6
IC2004	A－4, J－4

TRANSISTOR	
Q002	G－2
Q003	I－3
Q564	H－7
Q565	I－8
Q566	J－7
Q567	J－8
Q2001	I－5
Q2002	J－5
Q2003	I－6
Q2005	H－5
Q2006	K－5
Q2008	I－6

DIODE	
D001	G－2
D2001	I－5
D2002	J－5
D2003	I－6



③
0.5 Vp-p (V)
⑥
175 Vp-p (H)
⑨
19.0 Vp-p (H)



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J
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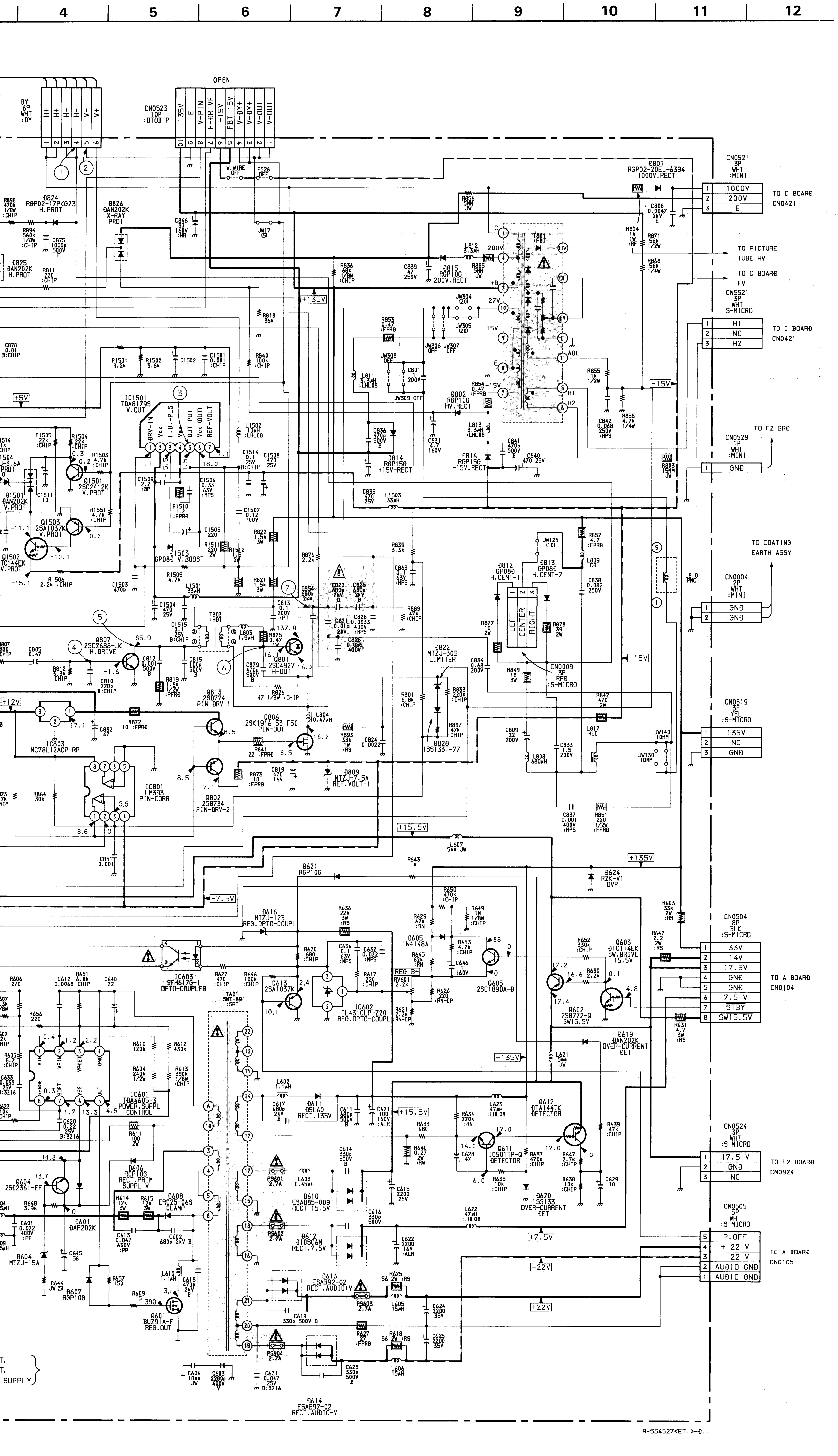
L
M
N
O
DY
H.DY
H.DY
V.DY
V.DY
DY1 6P WHT :DY
H+
H+
H-
H-
V-
V+
OPEN
CN0523 10P :BTOB-P
135V
E
V-PIN
H-DRIVE
-15V
FBT 15V
V-DY+
V-DY+
V-OUT
V-OUT
W.WIRE OFF
FS26 OFF
JW17
R856 5MM JW
T801 :FBT
HV
DF
FV
ABL
H1
H2
200V
27V
15V
+B
-15V
L812 3.3μH
D815 RGP10G 200V.RECT
R885 5MM JW
C839 47 250V
R836 68k 1/8W :CHIP
+135V
R818 36k
R853 0.47 :FPRD
JW304 (20)
JW305 (20)
JW306 OFF
JW307 OFF
JW308 OFF
JW309 OFF
C801 200V
L811 3.3μH :LHL08
C836 470p 500V B
D814 RGP15G +15V-RECT
C831 4.7 160V
D802 RGP10G HV.RECT
R854 0.47 :FPRD
L813 3.3μH :LHL08
D816 RGP15G -15V.RECT
C841 470p 500V B
C840 470 25V
C835 470 25V
L1503 33μH
C877 0.47
R895 82k :CHIP
R898 470k 1/8W :CHIP
D824 RGP02-17PKG23 H.PROT
D826 DAN202K X-RAY PROT
C846 33 160V :HR
R894 560k 1/8W :CHIP
C875 1000p 500V E
D825 DAN202K H.PROT
R811 220 :CHIP
D803 MTZJ-33C
CN0506 5P BLK :S-MICRO
X-RAY
H PULSE
H DRIVE
GND
ABL
TO A BOARD CN0106
C878 0.01 B:CHIP
R1501 8.2k
R1502 3.6k
C1502 1
C1501 0.001 :CHIP
R840 100k :CHIP
PROT
PARA
SAW+
GND
5V
V-PIN
TO M BOARD CN1426
CN0526 6P YEL :S-MICRO
+5V
IC1501 TDA8179S V.OUT
DRV-IN
Vcc
F.B.-PLS
Vcc
OUT-PUT
Vcc (OUT)
REF-VOLT
L1502 10μH :LHL08
C1514 0.1 25V B:CHIP
C1508 470 25V
C1509 2.2 :BP
C1506 0.33 63V :MPS
R1510 1.2 :FPRD
C1507 0.12 100V
C1505 220
R1511 220 2W
R1512 1.6 2W
D1503 GP08D V.BOOST
R822 1.5k 3W
R1514 1k :CHIP
R1505 22k :CHIP
R1504 22k :CHIP
R1503 4.7k :CHIP
D1504 MTZJ-3.6A V.PROT
Q1501 2SC2412K V.PROT
D1501 DAN202K V.PROT
C1511 10
R1551 4.7k :CHIP
Q1504 DTC144EK V.PROT
Q1503 2SA1037K V.PROT
C1512 10 25V :BP
Q1502 DTC144EK V.PROT
R1506 2.2k :CHIP
C1503 470p
R1509 4.7k
L1501 33μH
R821 1.5k 3W
C854 680p 2kV
C822 680p 2kV B
C825 680p 2kV B
R839 3.3k
C869 0.1 63V :MPS
R1508 24k 1/10W
C1504 470 25V
C1515 0.1 25V B:CHIP
T803 :HDT
L803 1.9μH
R825 0.47
C813 0.1 200V :PT
C821 0.015 2kV
C828 0.0033 400V :MPS
C826 0.056 400V
R889 47k :CHIP
C863 0.047 100V :MPS
R807 330 :CHIP
C805 0.47
Q807 2SC2688-K H.DRIVE
C812 0.001 500V B
C815 100p 500V B
C879 470p 500V B
D801 2SC4927 H-OUT
R812 3.3k :CHIP
C810 220p B:CHIP
R819 1/2W :PFRD
Q813 2SB774 PIN-DRV-1
R826 47 1/8W :CHIP
D812 GP08D H.CENT-1
D813 GP08D H.CENT-2
JW125 (10)
LEFT
CENTER
RIGHT
R877 10 2W
R878 39 2W
D822 MTZJ-30B LIMITER
C834 0.68 200V
CN0009 3P RED :S-MICRO
R849 18 3W
R801 6.8k :CHIP
R833 220k :CHIP
R897 47k :CHIP
D828 1SS133T-77
C809 22 200V
L808 680μH
C833 1.5 200V
+15.5V
+12V
C843 10
IC803 MC78L12ACP-RP
C832 47
R872 10 :FPRD
Q806 2SK1916-53-F50 PIN-OUT
L804 0.47μH
R893 33k 1W :RS
C824 0.0022
R841 22 :FPRD
R873 10 :FPRD
C819 470 16V
D809 MTZJ-7.5A REF.VOLT-1
Q802 2SB734 PIN-DRV-2
R823 4.7k :CHIP
R864 30k
IC801 LM393 PIN-CORR
C851 0.001
CN0544 10P BLK :BTOB-P
GND
T.SAW
+12V
ABL
N.C
17.5V
-7.5V
GND
H.D
H.P
TO D5 BOARD CN2044
-7.5V
L607 5mm JW
R643 1k
D621 RGP10G
D616 MTZJ-12B REG.OPTO-COUPL
R636 22k 3W :RS
R650 470k :CHIP
R649 1M 1/8W :CHIP
R629 62k :RN
D605 1N4148A
R653 4.7k :CHIP
Q605 2SC1890A-D
R645 62k :RN
C646 1 160V
REG B+
RV601 2.2k
R626 220 :RN-CP
R621 2.2k :RN-CP
IC603 SFH617G-1 OPTO-COUPLER
R620 680 :CHIP
C636 0.1 63V :MPS
C632 0.022 :MPS
R617 220 :CHIP
R622 470 :CHIP
R646 100k :CHIP
Q613 2SA1037K
IC602 TL431CLP-Z20 REG.OPTO-COUPL
T601 SRT-89 :SRT
R655 4.7k
C647 10
R606 270
C612 0.0068 :CHIP
R651 6.8k :CHIP
C640 22
Q606 2SA1037K
R607 3.3k 1/8W
R656 220
C608 1
R602 22k :CHIP
R605 8.2 :CHIP
C633 0.033 25V B:3216
R610 120k
R612 430k
R604 240k 1/2W
R613 390k 1/8W :CHIP
IC601 TDA4605-3 POWER.SUPPL CONTROL
VIN
VPIN
VPBE
GND
SENSE
SOFT
VSS
OUT
R654 100k 2W
D602 RGP10G RECT.AUX.V-PRIM
C627 0.0015 400V :MPS
R623 10k :CHIP
C620 0.22 25V B:3216
R611 100 2W
L602 1.1μH
C617 680p 2kV
D611 D5L60 RECT.135V
C611 680p 500V B
C621 100 160V :ALR
+15.5V
+135V
R634 220k :RN
L623 47μH :LHL08
Q612 DTA144TK DETECTOR
R633 680
R640 0.27 2W :RW
C628 47
Q611 ICS01TP-Q DETECTOR
R637 470k :CHIP
R635 10k :CHIP
D620 1SS133 OVER-CURRENT DET
CN0525 6P WHT :VH
AC IN
NC
NC
300V
NC
PRIM.GND
TO F2 BOARD CN0925
C605 47 50V
R608 68k 2W
Q604 2SD2361-EF
R648 3.9k
L604 0.45μH
C601 0.022 400V :PP
D601 DAP202K
D606 RGP10G RECT.PRIM SUPPL-V
R614 12k 3W
R615 12k 3W
D608 ERC25-06S CLAMP
C613 0.047 630V :PP
C602 680p 2kV B
L609 0.45μH
D604 MTZJ-15A
C645 56
R644 JW
D607 RGP10G
R657 150
R609 15
L610 1.1μH
C618 470p 2kV B
Q601 BUZ91A-E REG.OUT
PS601 2.7A
L603 0.45μH
C614 330p 500V B
D610 ESAB85-009 RECT-15.5V
C615 2200 25V
C616 330p 500V
PS602 2.7A
D612 D10SC6M RECT.7.5V
C622 2200 16V :ALR
L622 47μH :LHL08
+7.5V
-22V
D613 ESAB92-02 RECT.AUDIO+V
PS603 2.7A
R625 56 2W :RS
L605 15μH
C624 2200 35V
+22V
C619 330p 500V B
R627 27 :FPRD
R618 56 2W :RS
C625 2200 35V
PS604 2.7A
C623 330p 500V B
L606 15μH
C606 10mm JW
C603 2200p 400V
C631 0.047 25V B:3216
D614 ESAB92-02 RECT.AUDIO-V
D
H/V OUT.
PIN OUT.
POWER. SUPPLY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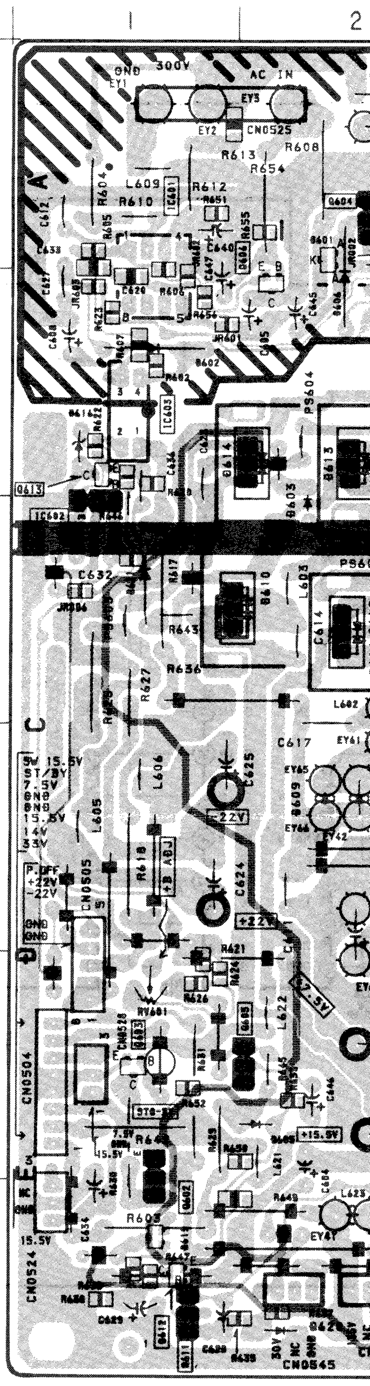
12
OPEN
DY1 6P WHT :DY
H+
H+
H-
H-
V-
V+
CN0523 10P :BTOB-P
135V
E
V-PIN
H-DRIVE
-15V
FBT 15V
V-DY+
V-DY+
V-OUT
V-OUT
W.WIRE OFF
FS26 OFF
D801 RGP02-20EL-6394 1000V.RECT
CN0521 3P WHT :MINI
1000V
200V
E
TO C BOARD CN0421
D824 RGP02-17PKG23 H.PROT
D826 DAN202K X-RAY PROT
D825 DAN202K H.PROT
T801 :FBT
HV
TO PICTURE TUBE HV
TO C BOARD FV
D815 RGP10G 200V.RECT
200V
27V
15V
ABL
CN5521 3P WHT :S-MICRO
H1
NC
H2
TO C BOARD CN0421
+135V
+5V
IC1501 TDA8179S V.OUT
DRV-IN
Vcc
F.B.-PLS
Vcc
OUT-PUT
Vcc (OUT)
REF-VOLT
D802 RGP10G HV.RECT
D814 RGP15G +15V-RECT
D816 RGP15G -15V.RECT
-15V
TO F2 BRD
CN0529 1P WHT :MINI
GND
Q1504 DTC144EK V.PROT
Q1501 2SC2412K V.PROT
D1501 DAN202K V.PROT
Q1503 2SA1037K V.PROT
Q1502 DTC144EK V.PROT
D1503 GP08D V.BOOST
T803 :HDT
Q807 2SC2688-LK H.DRIVE
Q801 2SC4927 H-OUT
Q813 2SB774 PIN-DRV-1
Q806 2SK1916-53-F50 PIN-OUT
Q802 2SB734 PIN-DRV-2
D812 GP08D H.CENT-1
D813 GP08D H.CENT-2
LEFT
CENTER
RIGHT
CN0009 3P RED :S-MICRO
D822 MTZJ-30B LIMITER
D828 1SS133T-77
D809 MTZJ-7.5A REF.VOLT-1
TO COATING EARTH ASSY
CN0004 2P WHT :MINI
GND
GND
+12V
IC803 MC78L12ACP-RP
IC801 LM393 PIN-CORR
CN0519 3P YEL :S-MICRO
135V
NC
GND
+15.5V
+135V
-7.5V
D621 RGP10G
D624 R2K-V1 OVP
D616 MTZJ-12B REG.OPTO-COUPL
IC603 SFH6176-1 OPTO-COUPLER
D605 1N4148A
REG B+
Q613 2SA1037K
IC602 TL431CLP-Z20 REG.OPTO-COUPL
Q605 2SC1890A-D
Q603 DTC114EK SW.BRIVE 15.5V
Q602 2SB772-Q SW15.5V
CN0504 8P BLK :S-MICRO
33V
14V
17.5V
GND
GND
7.5 V
STBY
SW15.5V
TO A BOARD CN0104
D619 DAN202K OVER-CURRENT DET
T601 SMT-89 :SRT
IC601 TDA4605-3 POWER.SUPPL CONTROL
VIN
VPIN
VPDET
GND
SENSE
SOFT
OUT
D611 D5L60 RECT.135V
Q612 DTA144TK DETECTOR
Q611 1C501TP-Q DETECTOR
CN0524 3P WHT :S-MICRO
17.5 V
GND
NC
TO F2 BOARD CN0924
D606 RGP10G RECT.PRIM SUPPL-V
Q604 2SD2361-EF
D608 ERC25-06S CLAMP
D601 DAP202K
D604 MTZJ-15A
D607 RGP10G
Q601 BUZ91A-E REG.OUT
PS601 2.7A
D610 ESAB85-009 RECT-15.5V
D620 1SS133 OVER-CURRENT DET
PS602 2.7A
D612 D10SC6M RECT.7.5V
+7.5V
-22V
+22V
CN0505 5P WHT :S-MICRO
P.OFF
+ 22 V
- 22 V
AUDIO GND
AUDIO GND
TO A BOARD CN0105
D613 ESAB92-02 RECT.AUDIO+V
PS603 2.7A
PS604 2.7A
D614 ESAB92-02 RECT.AUDIO-V
SUPPLY
B-SS4527<ET.>-D..

- D BOARD -


A
B
C
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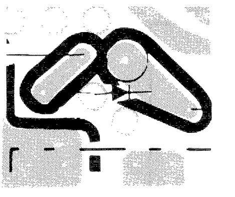
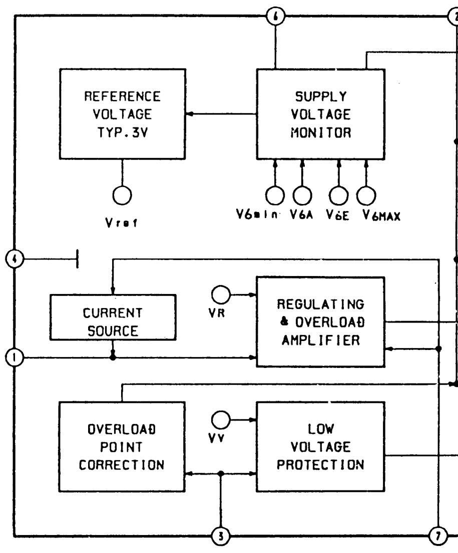
AC IN
CN0525
CN0505
CN0504
CN0524
CN0545



NOTE:
The circui
600 Vp-p.
inspection

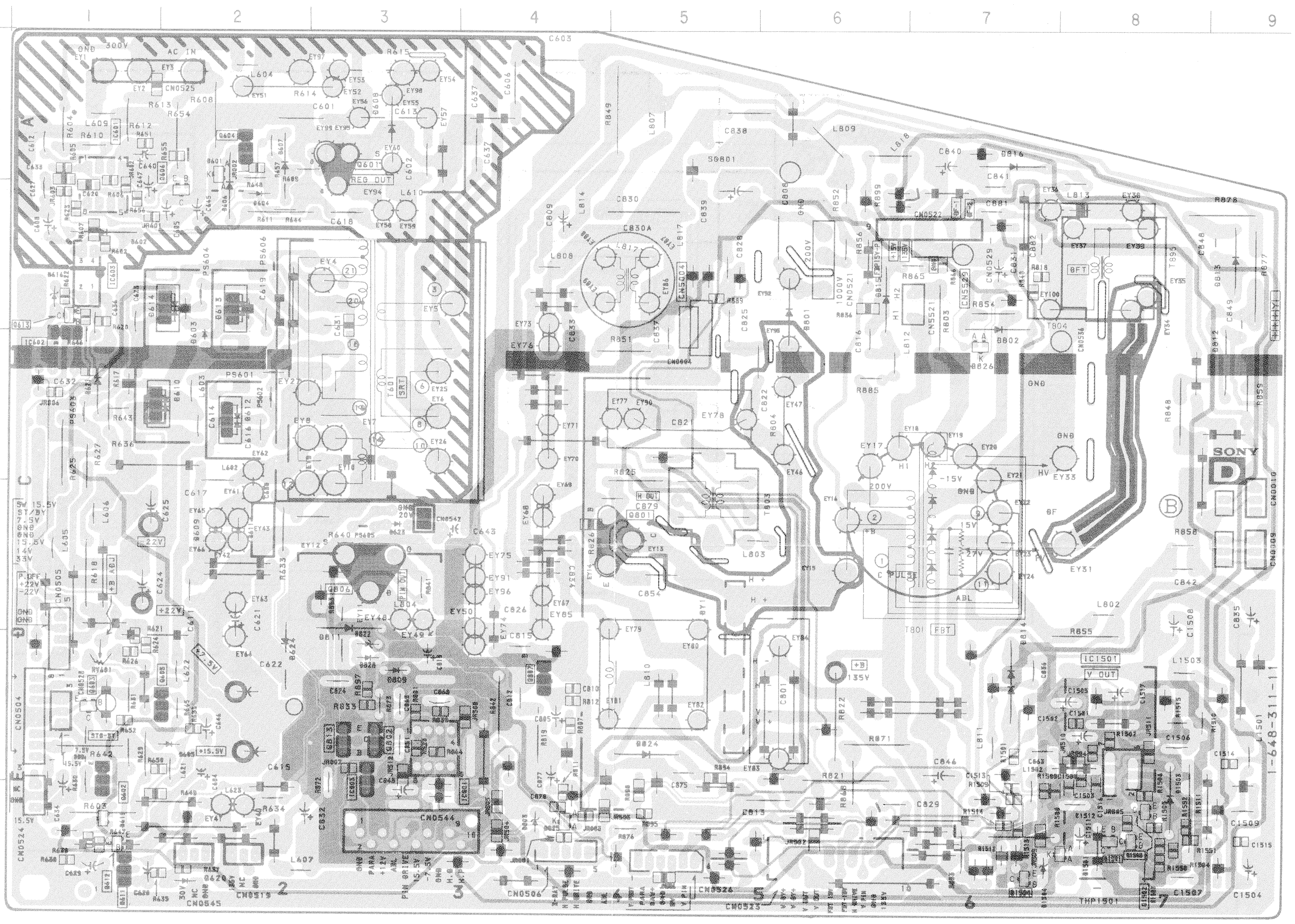
• D BOARD IC601 TDA4605-3


REFERENCE VOLTAGE TYP.3V
SUPPLY VOLTAGE MONITOR
Vref
V6min V6A V6E V6MAX
CURRENT SOURCE
VR
REGULATING & OVERLOAD AMPLIFIER
OVERLOAD POINT CORRECTION
VV
LOW VOLTAGE PROTECTION

Note :

- ▨ : Pattern from the side which enables seeing.
- ▩ : Pattern of the rear side.

– D BOARD –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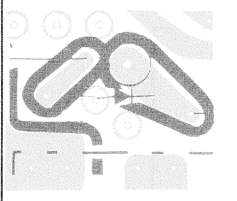
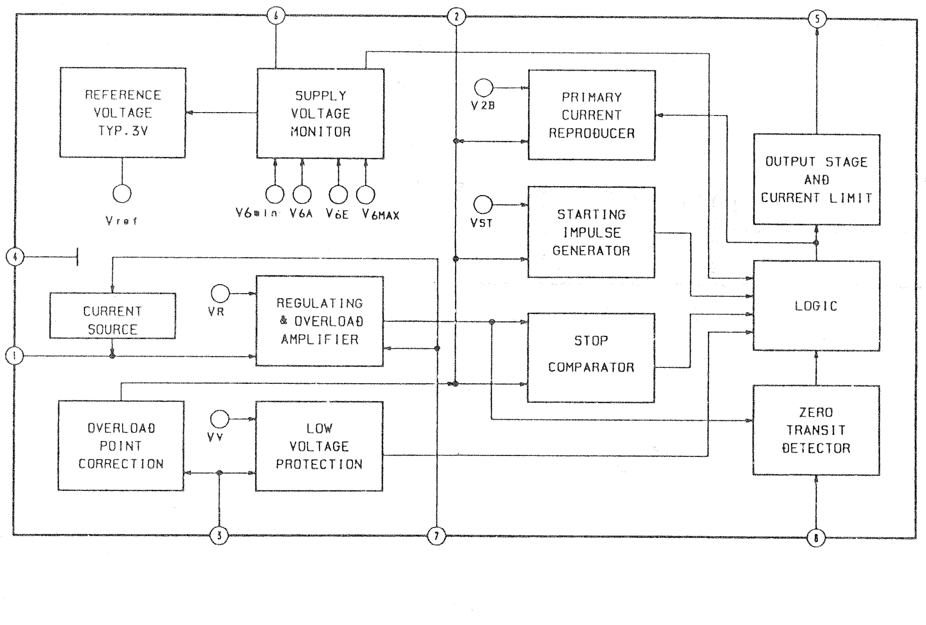
AC IN
300V
GND
RED OUT
CN0525
CN0544
CN0505
CN0504
CN0524
CN0519
CN0545
CN0506
CN0526
CN0523
CN0521
CN0522
CN5521
CN0529
H OUT
+B
+22V
+15.5V
+12.5V
200V
1000V
135V
-15V
-27V
HV
ABL
FBT
PULSE
V OUT
IC1501
THP1501
SONY
D
1-648-311-11



NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

• D BOARD IC601 TDA4605-3


REFERENCE VOLTAGE TYP.3V
SUPPLY VOLTAGE MONITOR
PRIMARY CURRENT REPRODUCER
OUTPUT STAGE AND CURRENT LIMIT
STARTING IMPULSE GENERATOR
LOGIC
CURRENT SOURCE
REGULATING & OVERLOAD AMPLIFIER
STOP COMPARATOR
OVERLOAD POINT CORRECTION
LOW VOLTAGE PROTECTION
ZERO TRANSIT DETECTOR
Vref
V6min
V6A
V6E
V6MAX
V2B
V5T
VR
VV
1
2
3
4
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6
7
8

IC	
IC601	A – 1
IC602	C – 1
IC603	B – 1
IC801	E – 3
IC803	F – 3
IC1501	E – 8

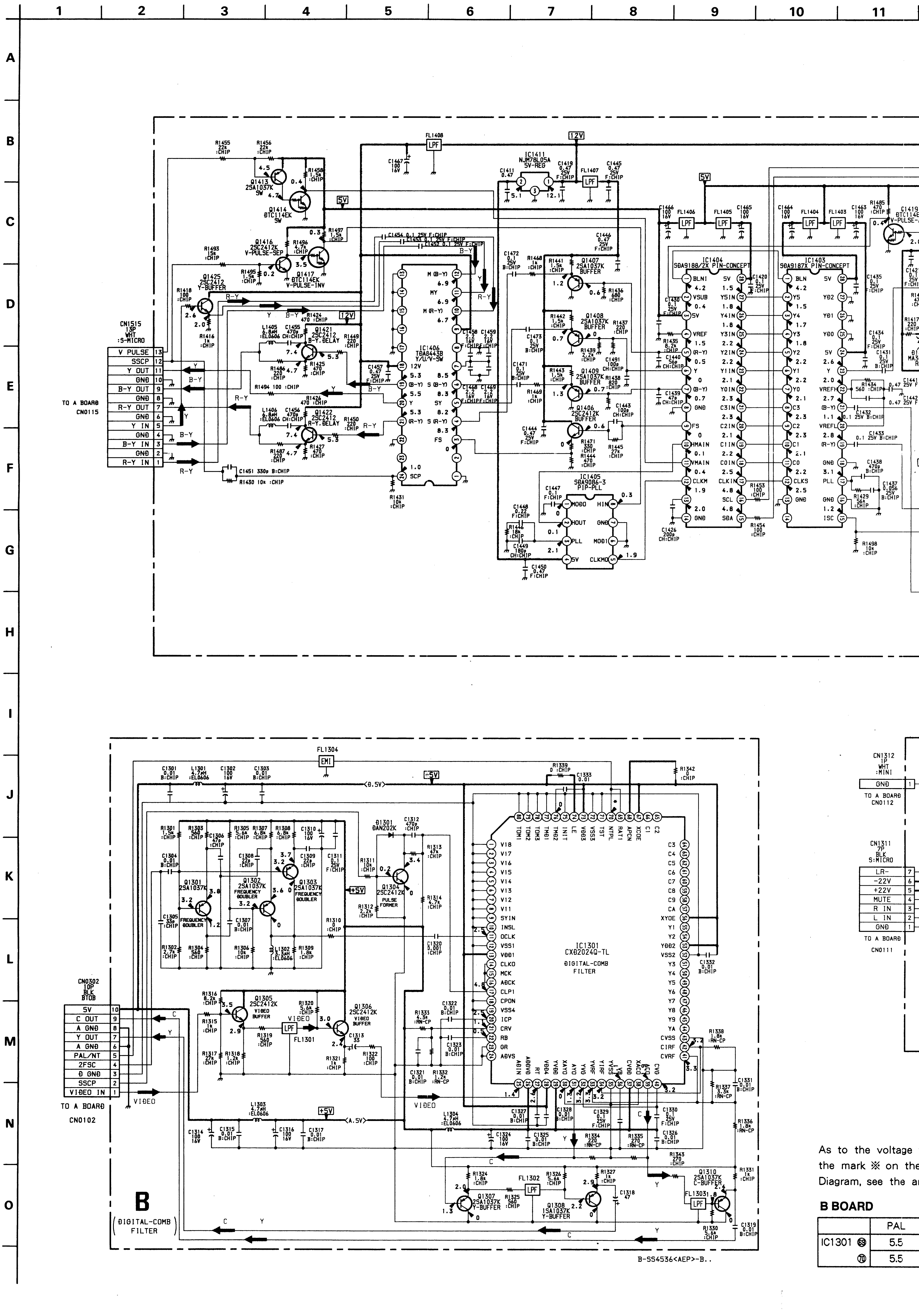
TRANSISTOR	
Q601	A – 3
Q602	F – 1
Q603	E – 1
Q604	A – 2
Q605	E – 2
Q606	B – 2
Q611	F – 1
Q612	F – 1
Q613	B – 1
Q801	D – 5
Q802	E – 3
Q806	D – 3
Q807	E – 4
Q813	E – 3
Q1501	F – 8
Q1502	F – 8
Q1503	F – 8
Q1504	F – 7

DIODE	
D601	A – 2
D602	B – 1
D604	B – 2
D605	E – 2
D606	B – 2
D607	A – 2
D608	A – 3
D610	C – 2
D611	D – 2
D612	C – 2
D613	B – 2
D614	B – 2
D616	B – 1
D619	F – 1
D620	F – 2
D621	C – 1
D624	E – 2
D801	B – 6
D802	B – 7
D803	F – 4
D809	E – 3
D811	D – 3
D812	C – 9
D813	B – 9
D814	E – 7
D815	B – 6
D816	A – 7
D822	E – 3
D824	E – 5
D825	F – 4
D826	C – 7
D828	E – 3
D1501	F – 8
D1503	F – 8
D1504	F – 7

VARIABLE RESISTOR	
RV601	E – 1

Schematic diagrams
← D boards

Schematic diagrams
B D5
K P1 boards →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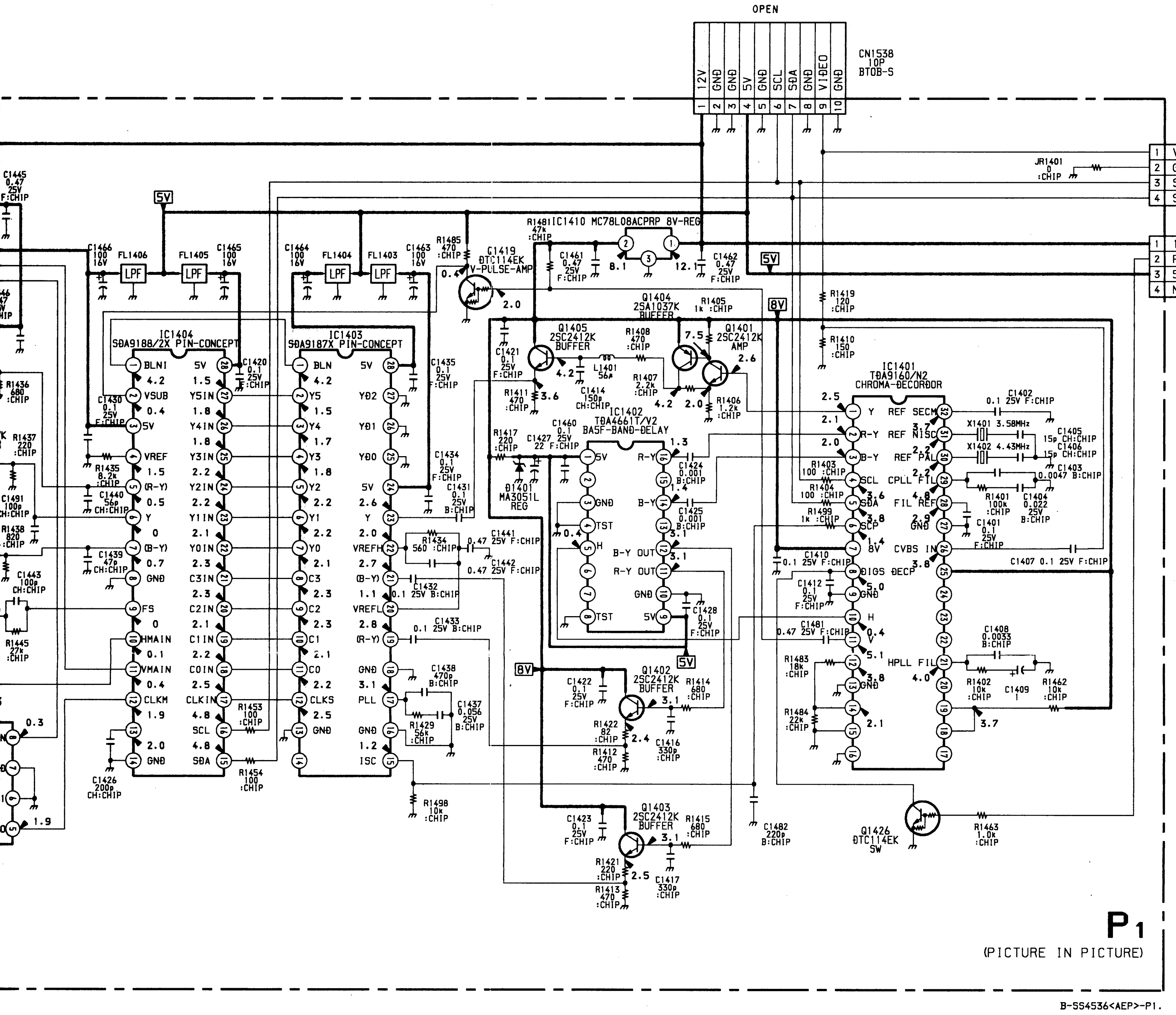
M
N
O
IC1406 TDA8443B Y/U/V-SW
IC1411 NJM78L05A 5V-REG
IC1404 SDA9188/2X PIP-CONCEPT
IC1403 SDA9187X PIP-CONCEPT
IC1405 SDA9086-3 PIP-PLL
CN1515 13P WHT :S-MICRO
V PULSE
SSCP
Y OUT
GND
B-Y OUT
GND
R-Y OUT
GND
Y IN
GND
B-Y IN
GND
R-Y IN
TO A BOARD CN0115
IC1301 CXD2024Q-TL DIGITAL-COMB FILTER
CN0302 10P BLK BTOB
5V
C OUT
A GND
Y OUT
A GND
PAL/NT
2FSC
D GND
SSCP
VIDEO IN
TO A BOARD CN0102
CN1312 1P WHT :MINI
TO A BOARD CN0112
CN1311 7P BLK S:MICRO
LR-
-22V
+22V
MUTE
R IN
L IN
GND
TO A BOARD CN0111
B
(DIGITAL-COMB FILTER)
B-SS4536<AEP>-B..

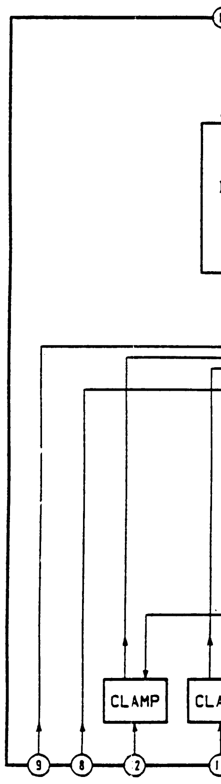
As to the voltage
the mark ※ on the
Diagram, see the a

B BOARD

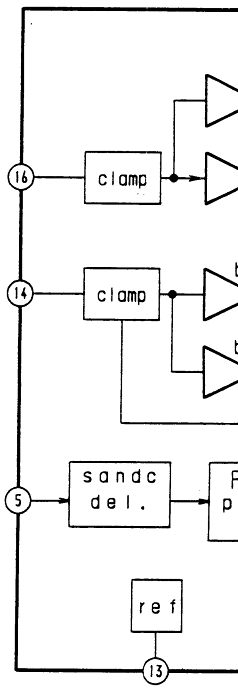
	PAL
IC1301 (69)	5.5
(70)	5.5

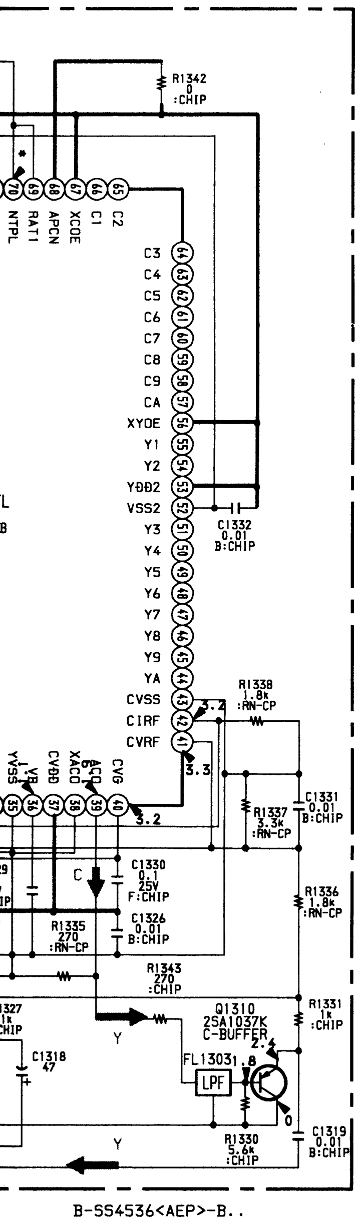

OPEN
CN1538 10P BTOB-S
12V
GND
5V
SCL
SDA
VIDEO
CN1516 4P WHT :S-MICRO
TO A BOARD CN0116
PIP RESET
NC
TO A BOARD CN0114
CN1514 4P BLK :S-MICRO
JR1401
IC1410 MC78L08ACPRP 8V-REG
Q1419 DTC114EK V-PULSE-AMP
IC1404 SDA9188/2X PIN-CONCEPT
IC1403 SDA9187X PIN-CONCEPT
FL1406
FL1405
FL1404
FL1403
LPF
Q1405 2SC2412K BUFFER
Q1404 2SA1037K BUFFER
Q1401 2SC2412K AMP
IC1402 TDA4661T/V2 BASF-BAND-DELAY
D1401 MA3051L REG
IC1401 TDA9160/N2 CHROMA-DECORDOR
X1401 3.58MHz
X1402 4.43MHz
Q1402 2SC2412K BUFFER
Q1403 2SC2412K BUFFER
Q1426 DTC114EK SW
P1
(PICTURE IN PICTURE)
B-SS4536<AEP>-P1.

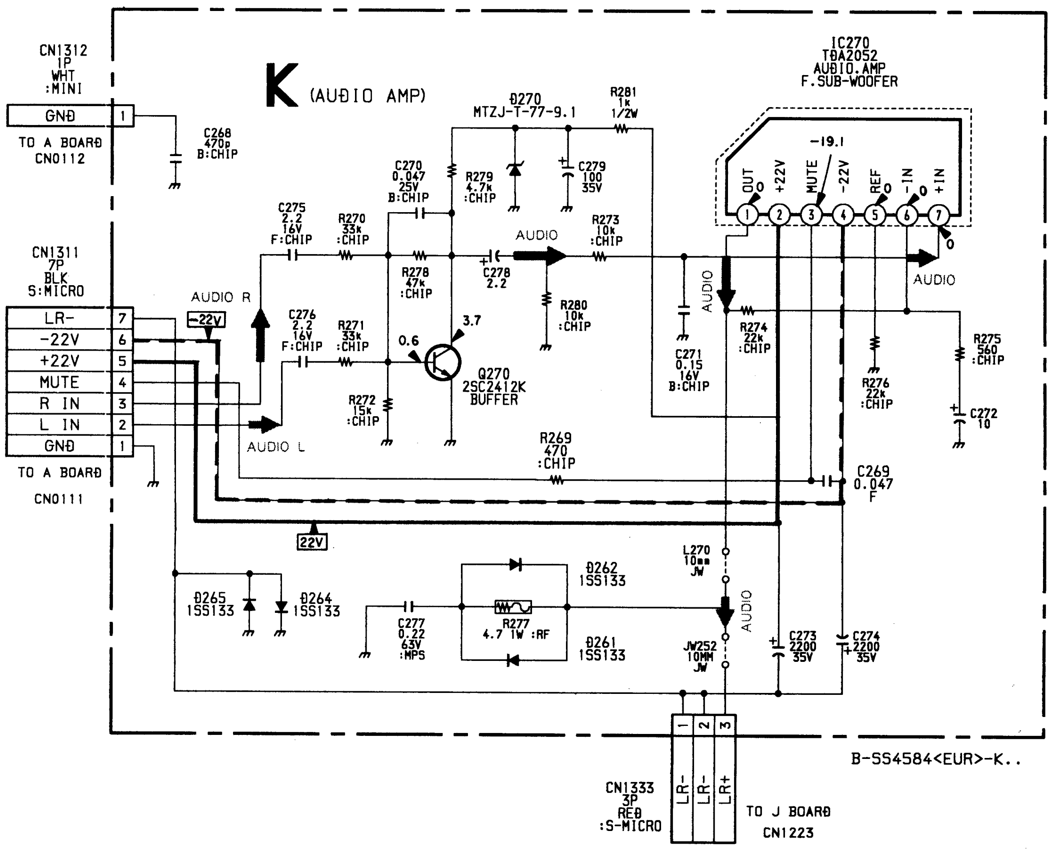
• P1 BOARD IC1



• P1 BOARD IC14


clamp
clamp
sandc del.
ref

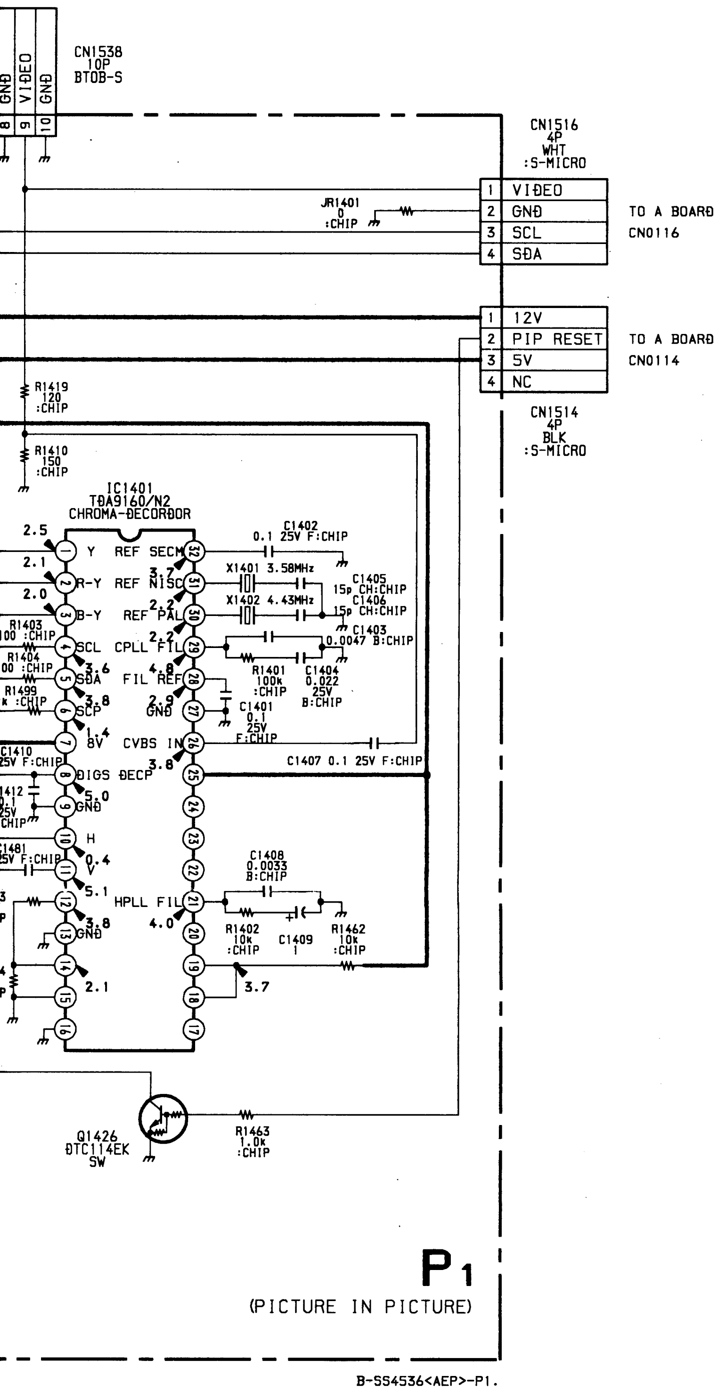

R1342
IC1301
XYDE
CVSS
CIRF
CVRF
Q1310 2SA1037K C-BUFFER
FL1303
LPF
B-SS4536<AEP>-B..

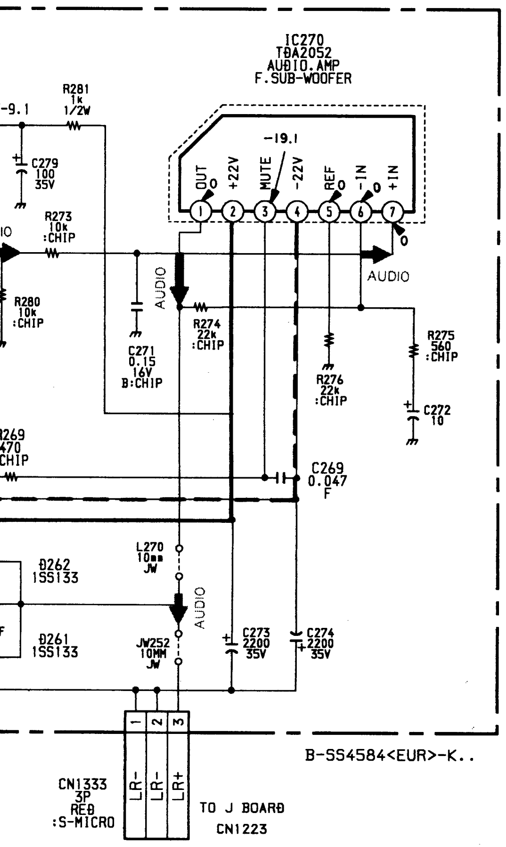

K (AUDIO AMP)
CN1312 1P WHT :MINI
TO A BOARD CN0112
CN1311 7P BLK S:MICRO
LR-
-22V
+22V
MUTE
R IN
L IN
GND
TO A BOARD CN0111
IC270 TDA2052 AUDIO.AMP F.SUB-WOOFER
D270 MTZJ-T-77-9.1
Q270 2SC2412K BUFFER
AUDIO R
AUDIO L
AUDIO
D265 1SS133
D264 1SS133
D262 1SS133
D261 1SS133
CN1333 3P RED :S-MICRO
TO J BOARD CN1223
B-SS4584<EUR>-K..

As to the voltage volue shown by the mark ※ on the Schematic Diagram, see the another list.

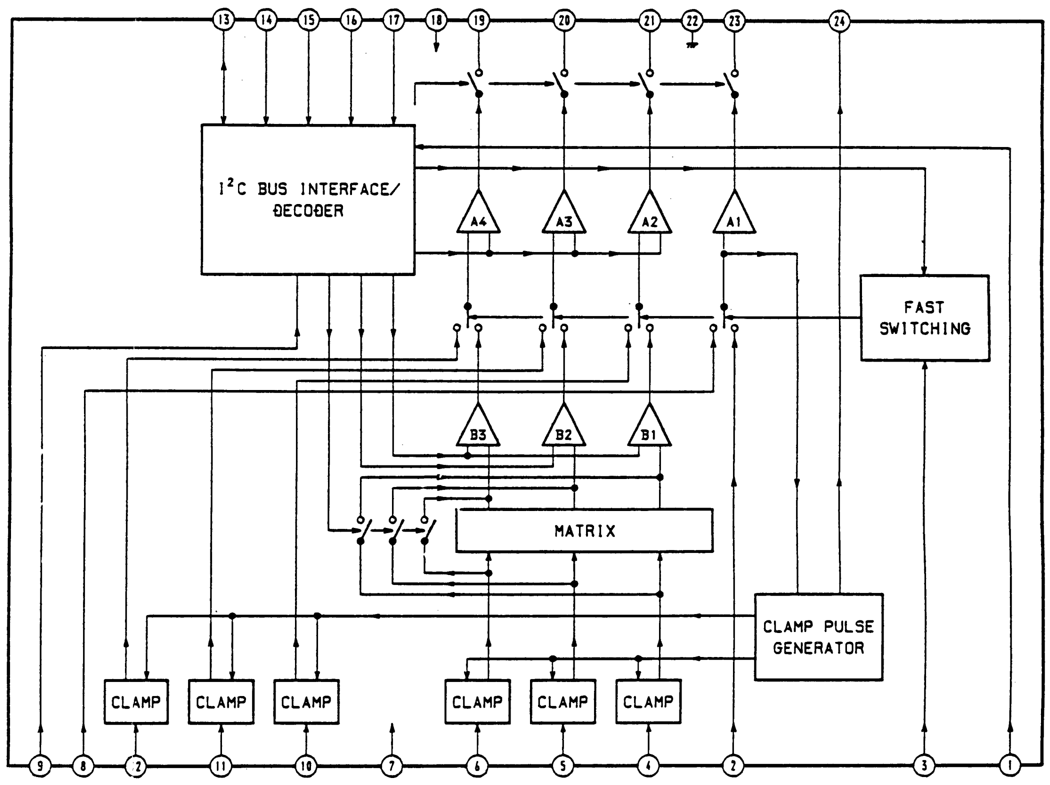
B BOARD

	PAL	SECAM	NTSC3.58	NTSC4.43
IC1301 (69)	5.5	5.5	0.1	0.1
(70)	5.5	5.5	0.1	0.1

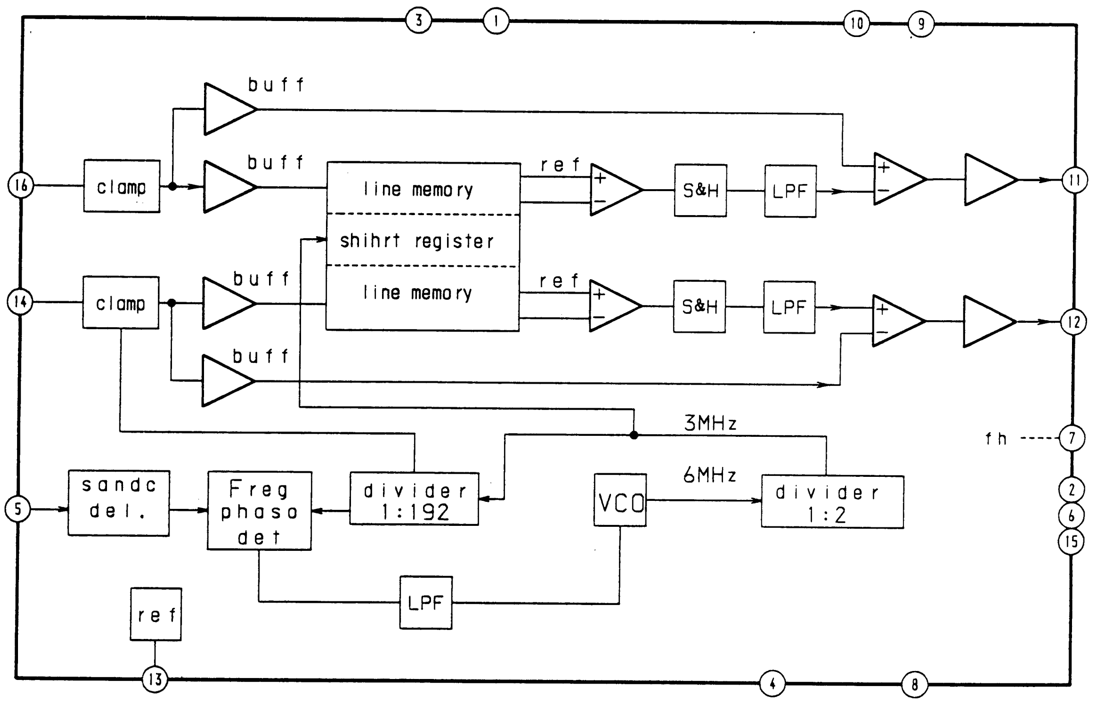

CN1538
10P
BTOB-S
GND
VIDEO
GND
CN1516
4P
WHT
:S-MICRO
1 VIDEO
2 GND
3 SCL
4 SDA
TO A BOARD
CN0116
JR1401
0
:CHIP
1 12V
2 PIP RESET
3 5V
4 NC
TO A BOARD
CN0114
CN1514
4P
BLK
:S-MICRO
R1419
120
:CHIP
R1410
150
:CHIP
IC1401
TDA9160/N2
CHROMA-DECORDOR
Y REF SECM
R-Y REF NISC
B-Y REF PAL
SCL CPLL FIL
SDA FIL REF
SCP GND
8V CVBS IN
DIGS DECP
GND
H
HPLL FIL
GND
C1402
0.1 25V F:CHIP
X1401 3.58MHz
X1402 4.43MHz
C1405
15p CH:CHIP
C1406
15p CH:CHIP
C1403
0.0047 B:CHIP
R1401
100k
:CHIP
C1404
0.022
25V
B:CHIP
C1401
0.1
25V
F:CHIP
C1407 0.1 25V F:CHIP
C1408
0.0033
B:CHIP
R1402
10k
:CHIP
C1409
1
R1462
10k
:CHIP
Q1426
DTC114EK
SW
R1463
1.0k
:CHIP
2.5
2.1
2.0
3.7
2.2
2.2
3.6
4.8
3.8
2.9
4
3.8
5.0
0.4
5.1
3.8
4.0
2.1
3.7
P1
(PICTURE IN PICTURE)
B-SS4536<AEP>-P1.

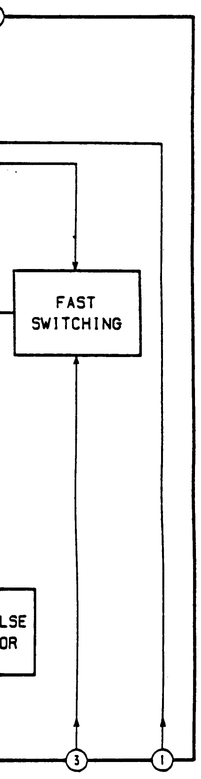

IC270
TDA2052
AUDIO AMP
F.SUB-WOOFER
R281
1k
1/2W
-9.1
-19.1
C279
100
35V
R273
10k
:CHIP
OUT
+22V
MUTE
-22V
REF
-IN
+IN
AUDIO
AUDIO
R280
10k
:CHIP
R274
22k
:CHIP
C271
0.15
16V
B:CHIP
R276
22k
:CHIP
R275
560
:CHIP
C272
10
R269
470
:CHIP
C269
0.047
F
D262
1SS133
D261
1SS133
L270
10mm
JW
JW252
10MM
JW
AUDIO
C273
2200
35V
C274
2200
35V
B-SS4584<EUR>-K..
CN1333
3P
RED
:S-MICRO
LR-
LR-
LR+
TO J BOARD
CN1223

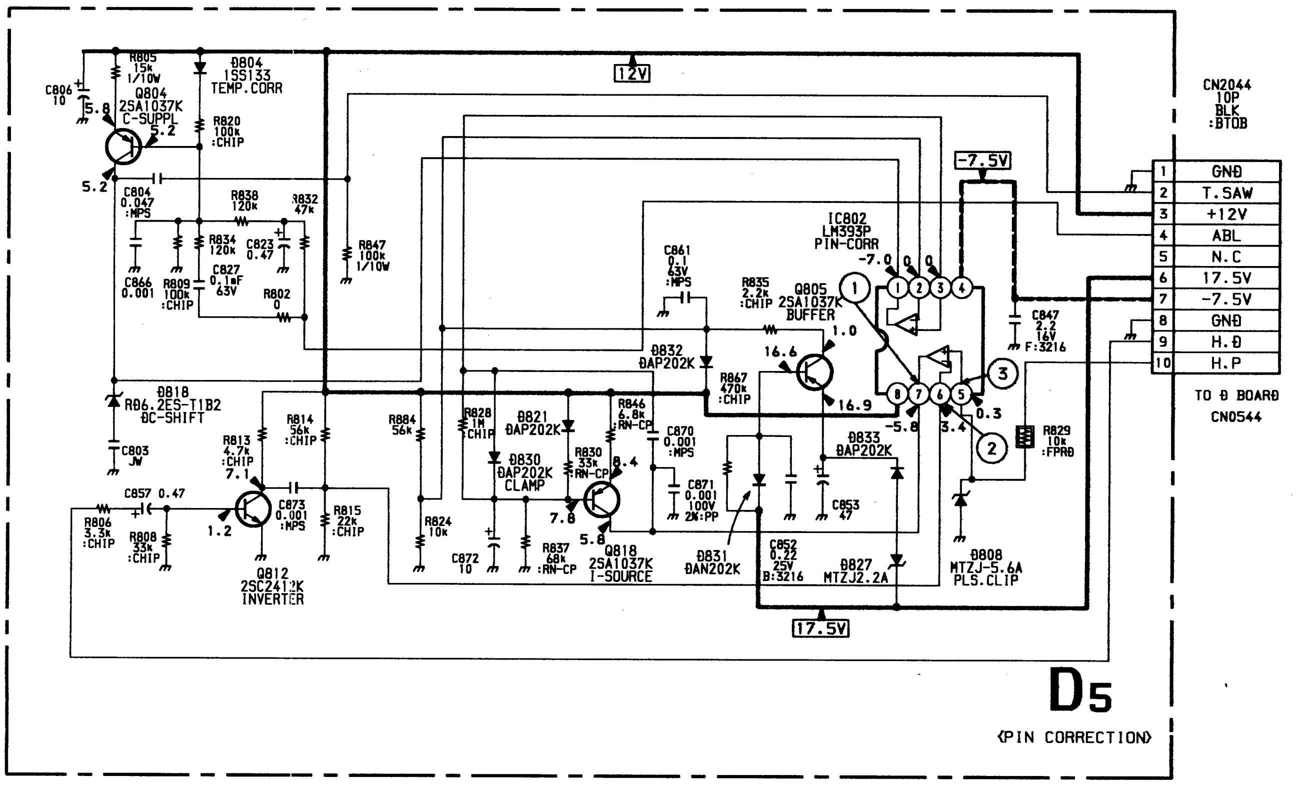
• P1 BOARD IC1406 TDA8443B


13
14
15
16
17
18
19
20
21
22
23
24
I²C BUS INTERFACE/
DECODER
A4
A3
A2
A1
FAST
SWITCHING
B3
B2
B1
MATRIX
CLAMP PULSE
GENERATOR
CLAMP
CLAMP
CLAMP
CLAMP
CLAMP
CLAMP
9
8
2
11
10
7
6
5
4
2
3
1

• P1 BOARD IC1402 TDA4661T/V2

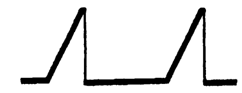
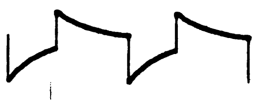
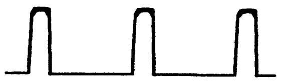

3
1
10
9
buff
buff
buff
buff
clamp
clamp
line memory
shihrt register
line memory
ref
ref
S&H
S&H
LPF
LPF
16
14
11
12
3MHz
6MHz
fh
7
2
6
15
5
sandc
del.
Freg
phaso
det
divider
1:192
VCO
divider
1:2
LPF
ref
13
4
8

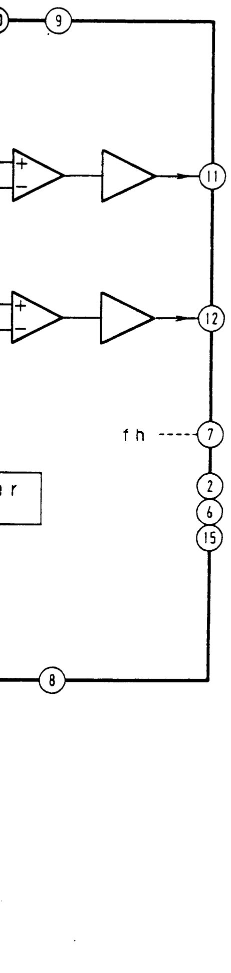

FAST SWITCHING
LSE
OR
③
①


12V
R805 15k 1/10W
C806 10
Q804 2SA1037K C-SUPPL
5.8
5.2
D804 1SS133 TEMP.CORR
R820 100k :CHIP
C804 0.047 :MPS
R838 120k
R832 47k
R834 120k
C823 0.47
C866 0.001
R809 100k :CHIP
C827 0.1mF 63V
R802 0
R847 100k 1/10W
D818 RD6.2ES-T1B2 DC-SHIFT
C803 JW
R813 4.7k :CHIP
7.1
R814 56k :CHIP
C857 0.47
R806 3.3k :CHIP
R808 33k :CHIP
1.2
C873 0.001 :MPS
R815 22k :CHIP
Q812 2SC2412K INVERTER
R884 56k
R828 1M CHIP
D821 DAP202K
D830 DAP202K CLAMP
R824 10k
C872 10
R837 68k :RN-CP
R830 33k :RN-CP
8.4
7.8
5.8
Q818 2SA1037K I-SOURCE
R846 6.8k :RN-CP
C870 0.001 :MPS
C871 0.001 100V 2%:PP
C861 0.1 63V :MPS
D832 DAP202K
R835 2.2k :CHIP
Q805 2SA1037K BUFFER
1.0
16.6
16.9
R867 470k :CHIP
D831 DAN202K
C852 0.22 25V B:3216
C853 47
D833 DAP202K
D827 MTZJ2.2A
17.5V
IC802 LM393P PIN-CORR
-7.0
0
0
①
②
③
-5.8
3.4
0.3
-7.5V
C847 2.2 16V F:3216
R829 10k :FPRD
D808 MTZJ-5.6A PLS.CLIP
CN2044 10P BLK :BTOB
1 GND
2 T.SAW
3 +12V
4 ABL
5 N.C
6 17.5V
7 -7.5V
8 GND
9 H.D
10 H.P
TO D BOARD CN0544
D5
⟨PIN CORRECTION⟩

B-SS4584<EUR>-D5.

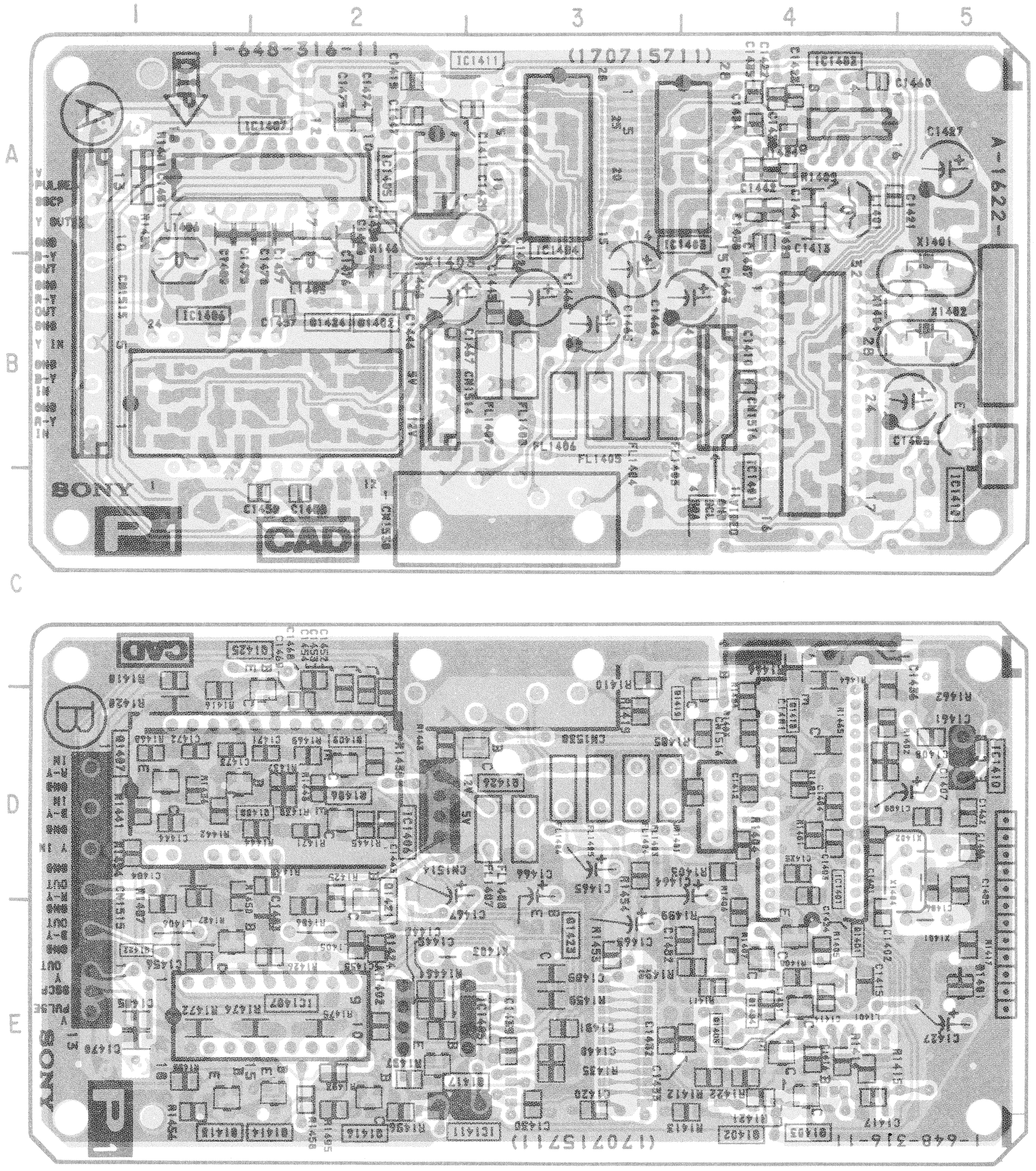
• WAVEFORMS D5 BOARD

①	②	③
		
8.5 Vp-p (H)	17.5 Vp-p (H)	6.0 Vp-p (H)


⑨
⑨
⑪
⑫
f h
⑦
r
②
⑥
⑮
⑧

P1 [PICTURE IN PICTURE] **B** [DIGITAL - COMB FILTER] **D5** [PIN CORRECTION] **K** [AUDIO AMP]

- P1 BOARD -


1
2
3
4
5
A
B
C
D
E
1-648-316-11
A-1622-
SONY
P1
CAD
DIP

IC	
IC1401	B - 4, D - 4
IC1402	A - 4
IC1403	A - 3
IC1404	A - 3
IC1405	A - 2, E - 2
IC1406	B - 1, D - 2
IC1410	B - 5, D - 5
IC1411	A - 2, E - 2

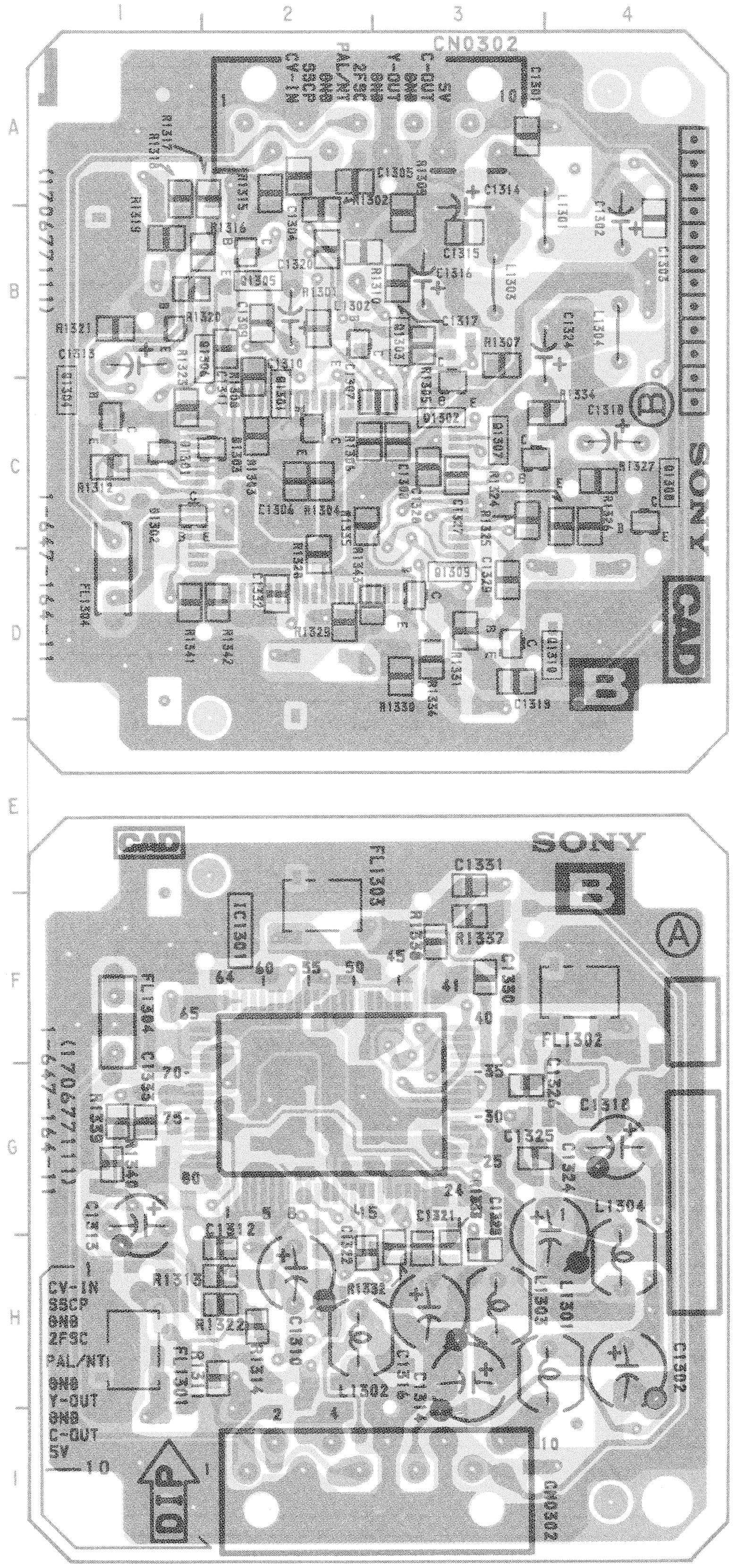
TRANSISTOR	
Q1401	E - 4
Q1402	E - 4
Q1403	E - 4
Q1404	E - 4
Q1405	E - 4
Q1406	D - 2
Q1407	D - 1
Q1408	D - 1
Q1409	D - 2
Q1413	E - 1
Q1414	E - 2
Q1416	E - 2
Q1417	E - 2
Q1419	D - 4
Q1421	E - 2
Q1422	E - 1
Q1425	D - 2
Q1426	D - 3

DIODE	
D1401	E - 5

Note :

- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.

- B BOARD -


1
2
3
4
A
B
C
D
E
F
G
H
I
CN0302
SONY
B
CAD
DIP
CV-IN
SSCP
GND
2FSC
PAL/NTI
GND
Y-OUT
GND
C-OUT
5V

IC	
IC1301	G - 2

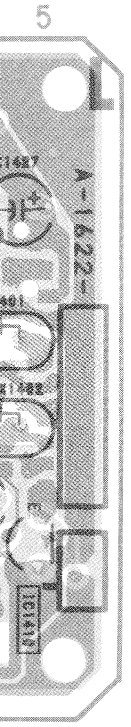
TRANSISTOR	
Q1301	C - 2
Q1302	B - 3
Q1303	B - 2
Q1304	C - 1
Q1305	B - 2
Q1306	B - 1
Q1307	C - 3
Q1308	C - 4
Q1310	D - 3

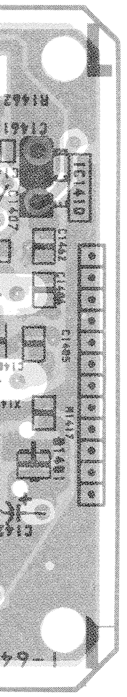
DIODE	
D1301	C - 1

Note :

- ▨ : Pattern from the side which en
- ▨ : Pattern of the rear side.

K [AUDIO AMP]





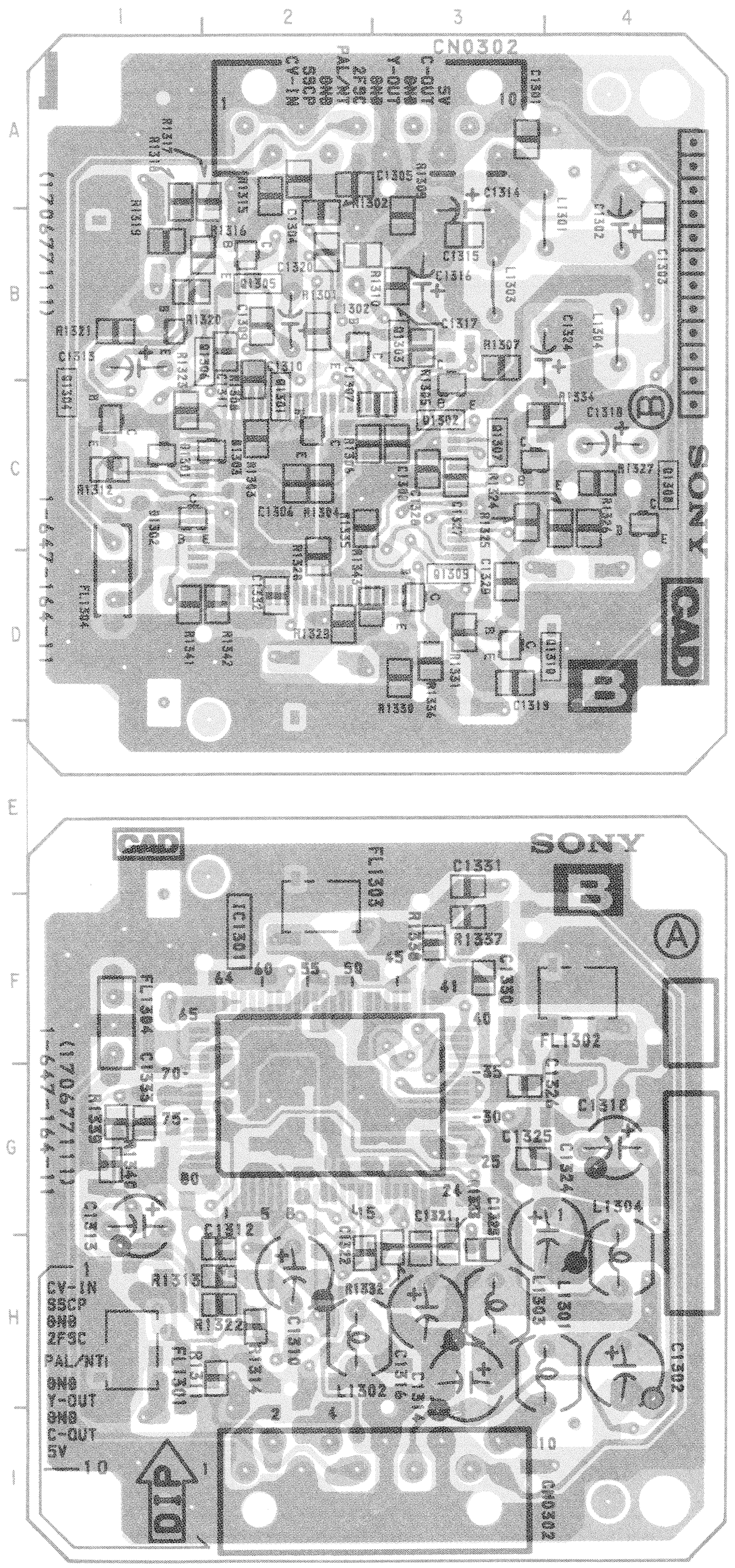
IC	
IC1401	B – 4, D – 4
IC1402	A – 4
IC1403	A – 3
IC1404	A – 3
IC1405	A – 2, E – 2
IC1406	B – 1, D – 2
IC1410	B – 5, D – 5
IC1411	A – 2, E – 2

TRANSISTOR	
Q1401	E – 4
Q1402	E – 4
Q1403	E – 4
Q1404	E – 4
Q1405	E – 4
Q1406	D – 2
Q1407	D – 1
Q1408	D – 1
Q1409	D – 2
Q1413	E – 1
Q1414	E – 2
Q1416	E – 2
Q1417	E – 2
Q1419	D – 4
Q1421	E – 2
Q1422	E – 1
Q1425	D – 2
Q1426	D – 3

DIODE	
D1401	E – 5

bles seeing.

– B BOARD –


1
2
3
4
A
B
C
D
E
F
G
H
I
CN0302
SONY
CAD
B
1-647-164-11
(170677111)
IC1301
FL1302
FL1303
FL1304
L1302
L1304
CV-IN
SSCP
GND
2FSC
PAL/NTI
GND
Y-OUT
GND
C-OUT
5V
DIP
Ⓐ

IC	
IC1301	G – 2

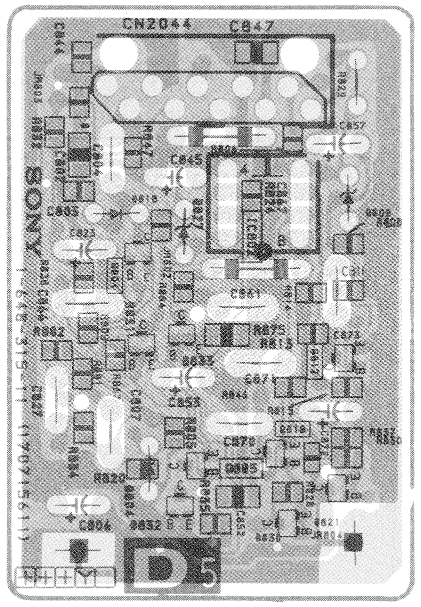
TRANSISTOR	
Q1301	C – 2
Q1302	B – 3
Q1303	B – 2
Q1304	C – 1
Q1305	B – 2
Q1306	B – 1
Q1307	C – 3
Q1308	C – 4
Q1310	D – 3

DIODE	
D1301	C – 1

Note :

- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.

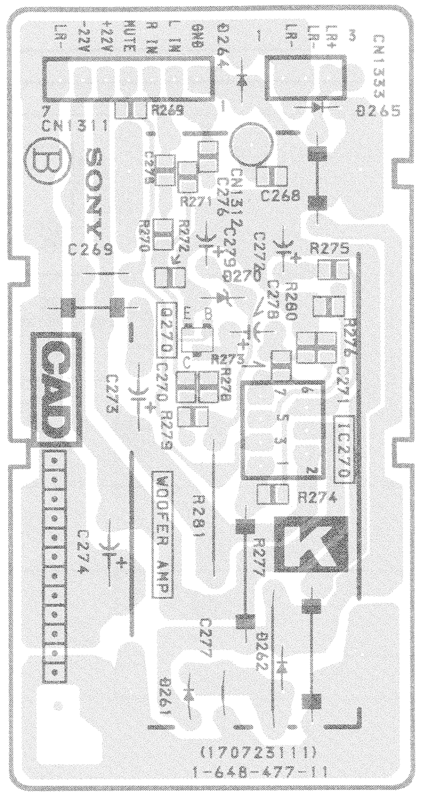
– D5 BOARD –

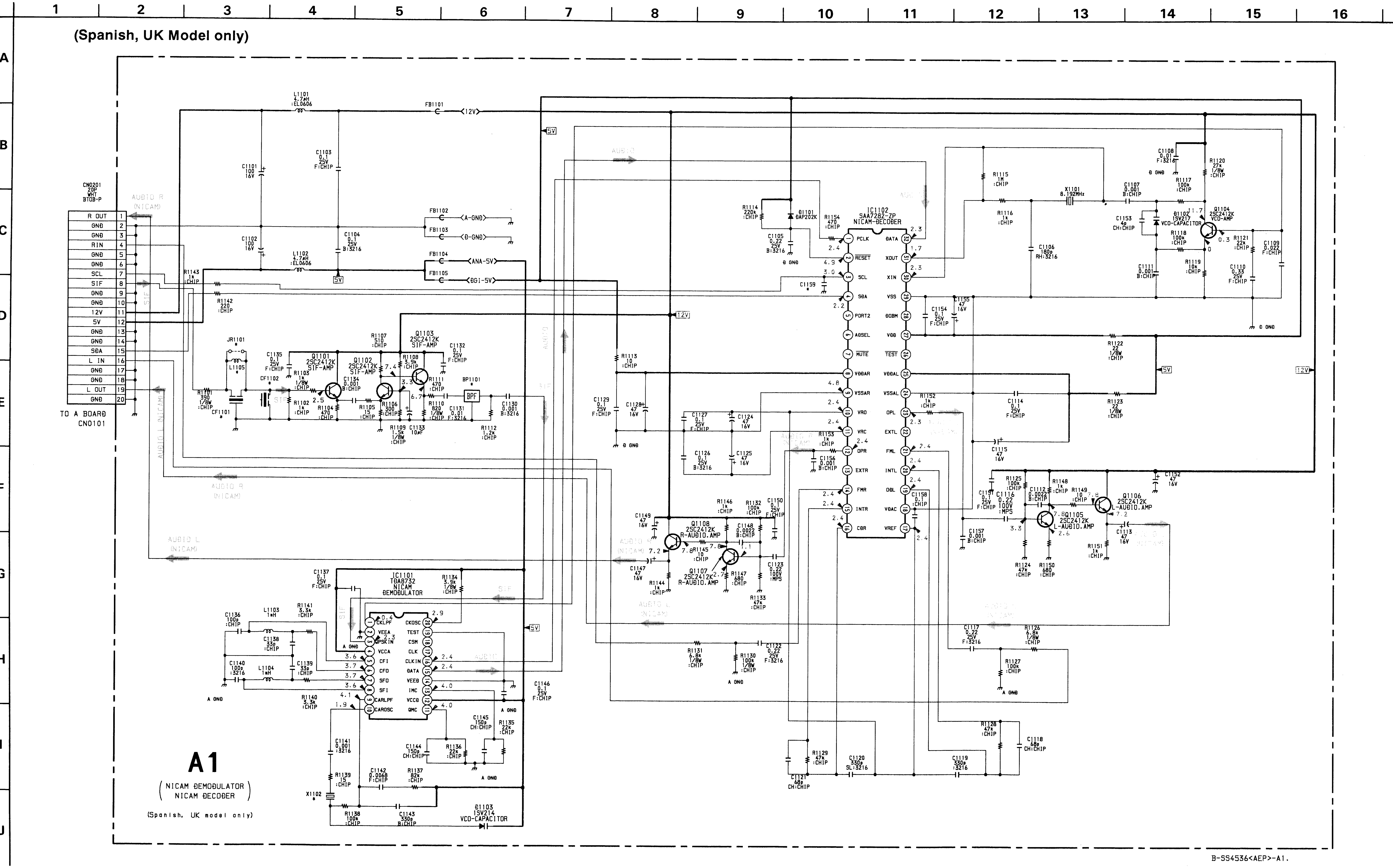

CN2044
C847
SONY
D5
1-648-315-11
(170715611)

Note :

- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.

– K BOARD –


CN1311
CN1333
Ⓑ
SONY
CAD
K
IC270
WOOFER AMP
LR-
-22V
+22V
R IN
MUTE
L IN
GND
LR+
(170723111)
1-648-477-11


(Spanish, UK Model only)
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
A B C D E F G H I J
CN0201 20P WHT BTOB-P
R OUT
GND
RIN
SCL
SIF
12V
5V
SDA
L IN
L OUT
TO A BOARD CN0101
AUDIO R (NICAM)
AUDIO L (NICAM)
L1101 4.7μH :EL0606
L1102 4.7μH :EL0606
FB1101
FB1102
FB1103
FB1104
FB1105
12V
A-GND
D-GND
ANA-5V
BGI-5V
5V
C1101 100 16V
C1102 100 16V
C1103 0.1 25V F:CHIP
C1104 0.1 25V B:3216
R1143 1k :CHIP
R1142 220 :CHIP
JR1101
L1105
CF1102
CF1101
R1101 390 1/8W :CHIP
Q1101 2SC2412K SIF-AMP
Q1102 2SC2412K SIF-AMP
Q1103 2SC2412K SIF-AMP
R1107 510 :CHIP
R1108 3.9k :CHIP
BPF
BP1101
C1130 0.001 B:3216
R1112 1.2k :CHIP
IC1101 TDA8732 NICAM DEMODULATOR
CKLPF
VEEA
DPSKIN
VCCA
CFI
CFO
SFO
SFI
CARLPF
CAROSC
CKOSC
TEST
CSM
CLK
CLKIN
DATA
VEED
IMC
VCCD
QMC
X1102
D1103 1SV214 VCO-CAPACITOR
A GND
IC1102 SAA7282-ZP NICAM-DECODER
PCLK
RESET
SCL
SDA
PORT2
ADSEL
MUTE
VDDAR
VSSAR
VRO
VRC
OPR
EXTR
FMR
INTR
CBR
DATA
XOUT
XIN
VSS
DDBM
VDD
TEST
VDDAL
VSSAL
OPL
EXTL
FML
INTL
DDL
VDAC
VREF
D1101 DAP202K
R1114 220k :CHIP
R1154 470 :CHIP
X1101 8.192MHz
R1115 1M :CHIP
R1116 1k :CHIP
C1106 180p RH:3216
D1102 1SV217 VCO-CAPACITOR
Q1104 2SC2412K VCO-AMP
Q1105 2SC2412K L-AUDIO.AMP
Q1106 2SC2412K L-AUDIO.AMP
Q1107 2SC2412K R-AUDIO.AMP
Q1108 2SC2412K R-AUDIO.AMP
B-SS4536<AEP>-A1.

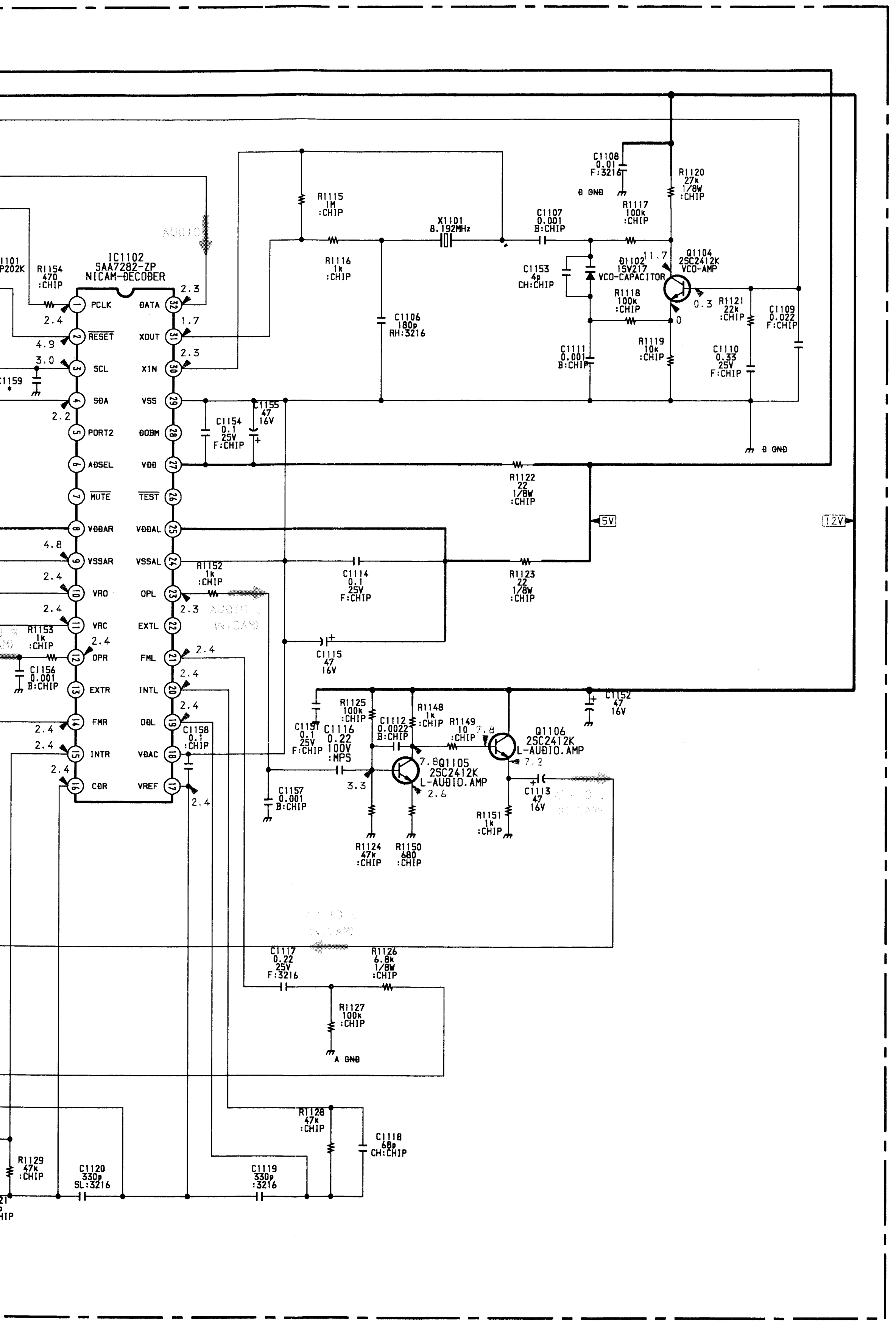
A1

(NICAM DEMODULATOR
NICAM DECODER)

(Spanish, UK model only)

A1 BO

M
BP11
C115
CF11
CF11
L110
JR11
X110

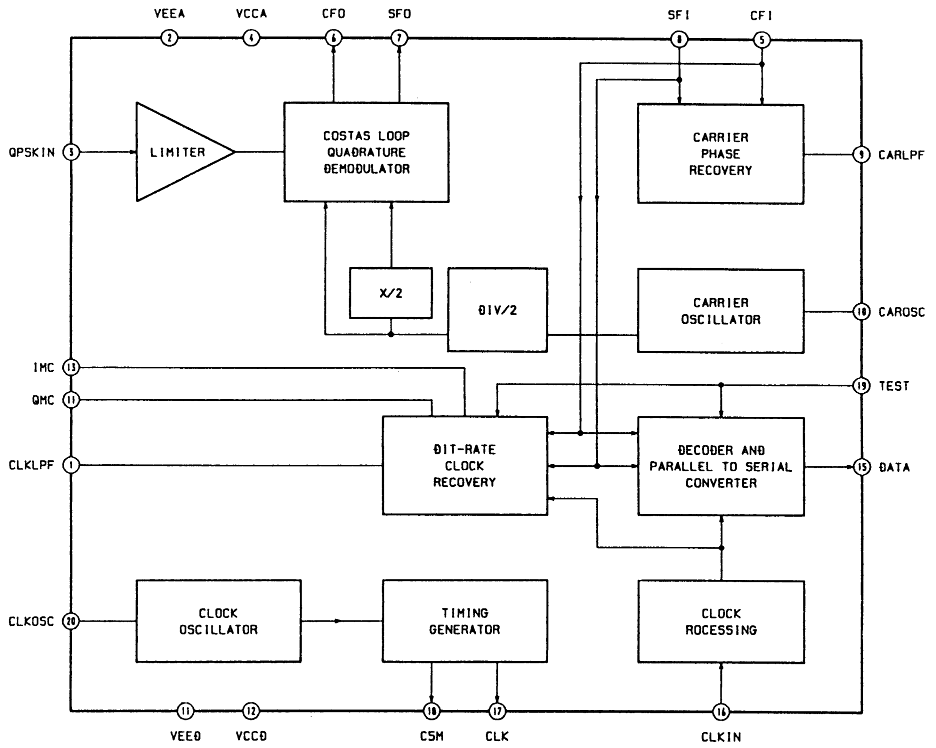

IC1102
SAA7282-ZP
NICAM-DECODER
X1101
8.192MHz
Q1104
2SC2412K
VCO-AMP
D1102
1SV217
VCO-CAPACITOR
Q1105
2SC2412K
L-AUDIO.AMP
Q1106
2SC2412K
L-AUDIO.AMP
5V
12V
B GND
A GND

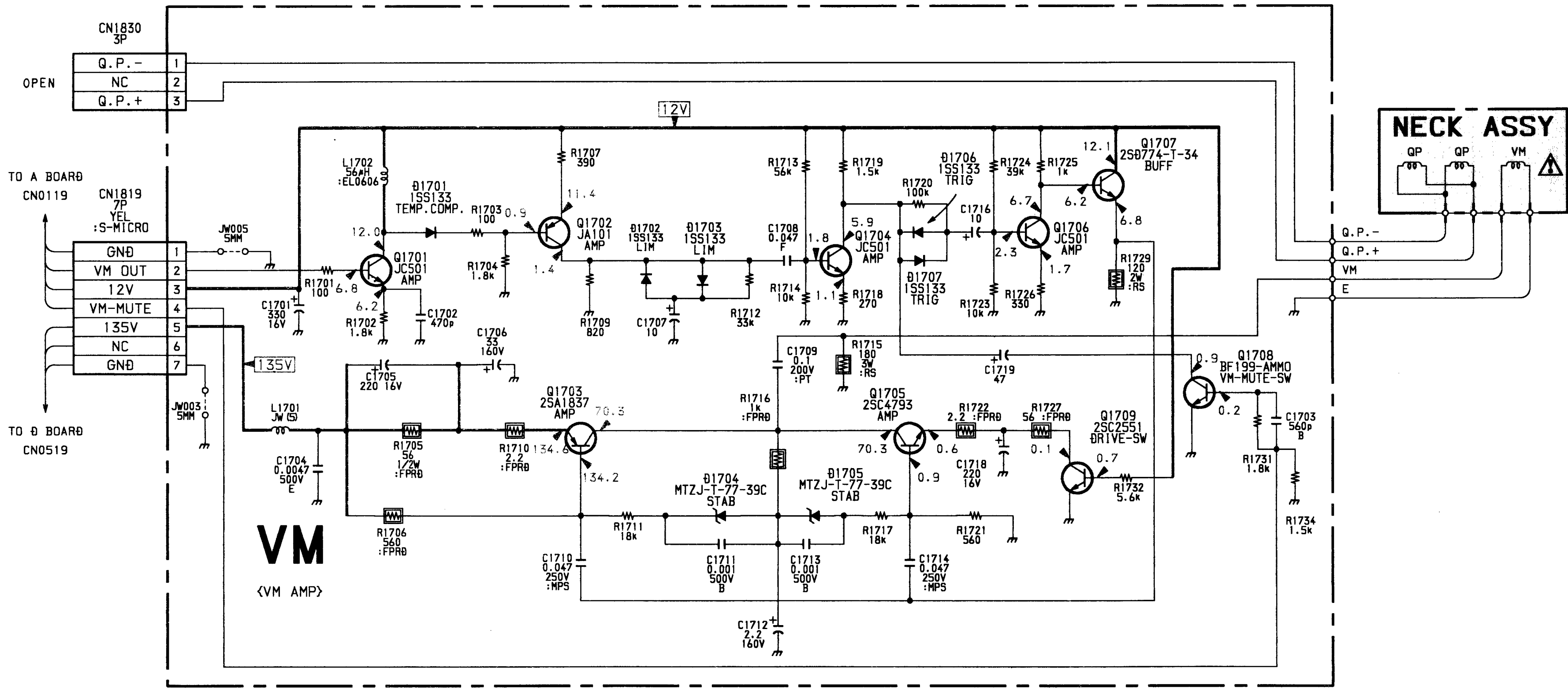
B-SS4536<AEP>-A1.

A1 BOARD ＊ MARK

Model	Spanish	UK
BP1101	5.850MHz	6.552MHz
C1159	–	47PF／50V
CF1101	–	6.0MHz
CF1102	5.5MHz	–
L1105	–	1MMH
JR1101	0 1／8W	–
X1102	11.700MHz	13.104MHz

• A1 BOARD IC1101 TDA8732

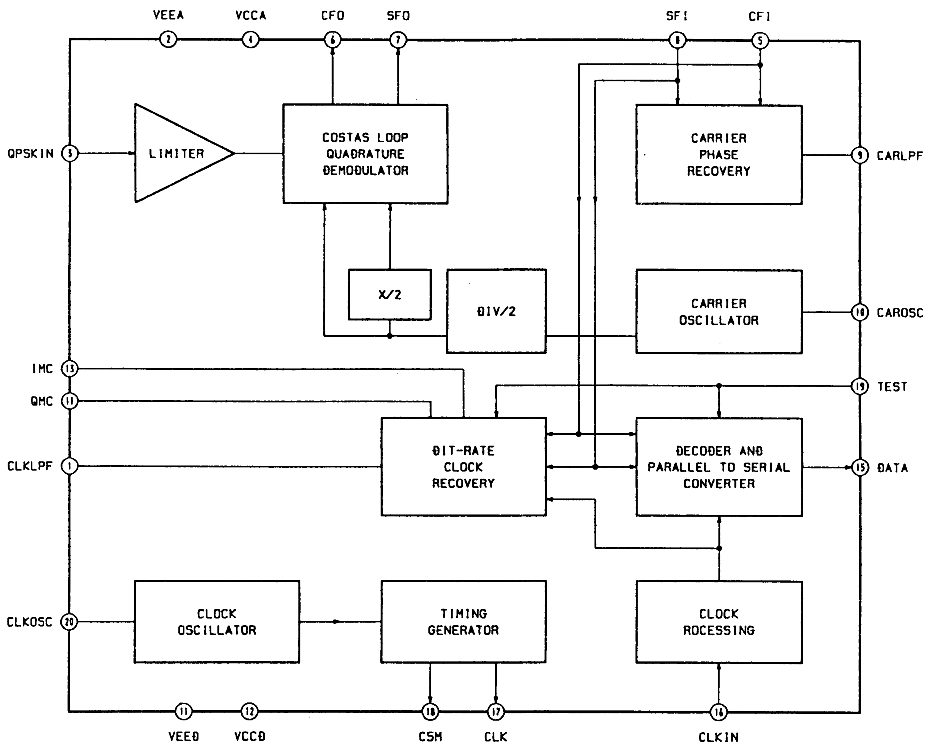

VEEA
VCCA
CFO
SFO
SFI
CFI
QPSKIN
LIMITER
COSTAS LOOP
QUADRATURE
DEMODULATOR
CARRIER
PHASE
RECOVERY
CARLPF
X/2
DIV/2
CARRIER
OSCILLATOR
CAROSC
IMC
QMC
TEST
CLKLPF
BIT-RATE
CLOCK
RECOVERY
DECODER AND
PARALLEL TO SERIAL
CONVERTER
DATA
CLKOSC
CLOCK
OSCILLATOR
TIMING
GENERATOR
CLOCK
ROCESSING
VEEO
VCCO
CSM
CLK
CLKIN

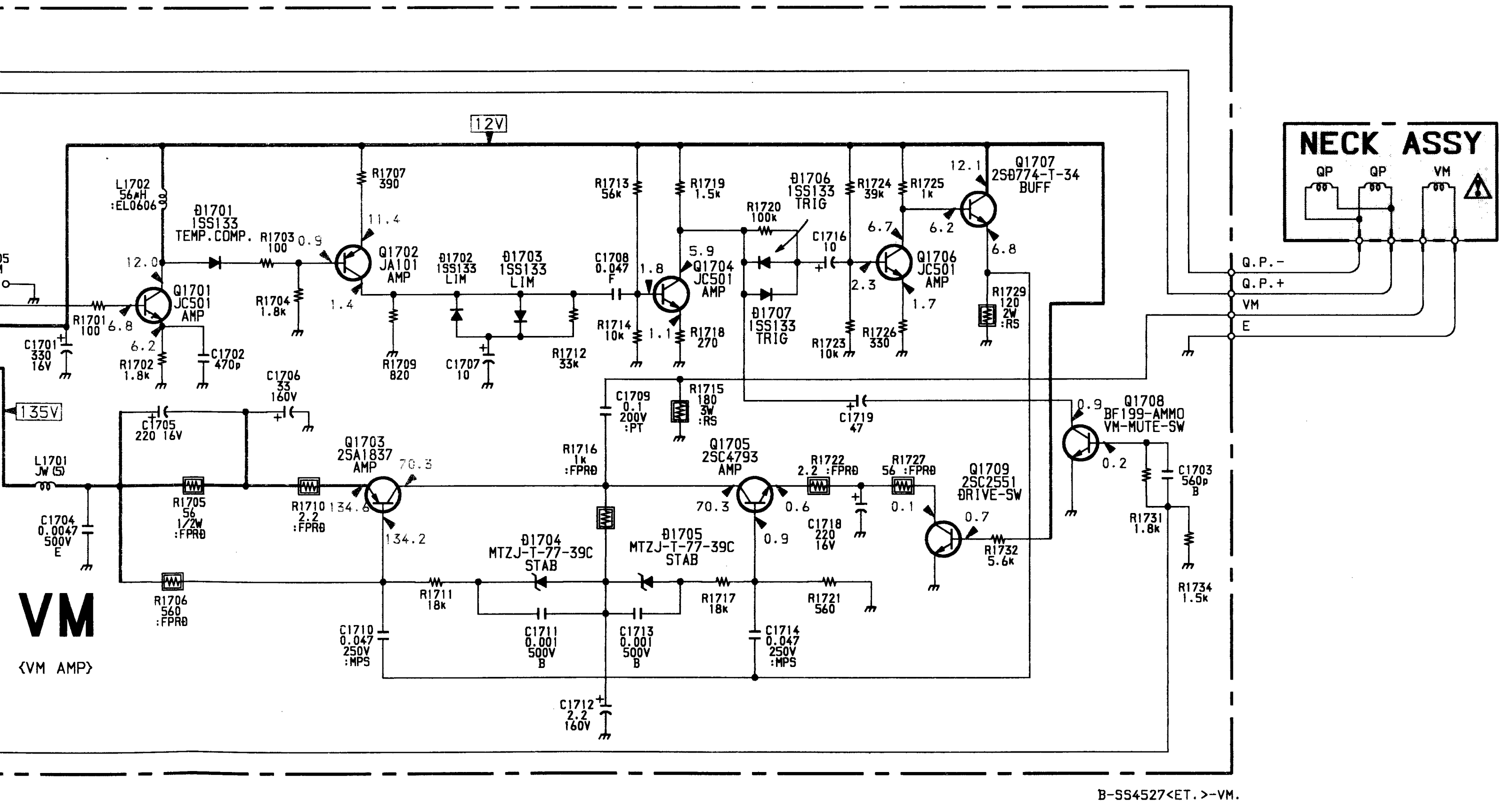

CN1830
3P
OPEN
Q.P.-
NC
Q.P.+
TO A BOARD
CN0119
CN1819
7P
YEL
:S-MICRO
GND
VM OUT
12V
VM-MUTE
135V
NC
GND
TO D BOARD
CN0519
12V
135V
Q1701
JC501
AMP
Q1702
JA101
AMP
Q1703
2SA1837
AMP
Q1704
JC501
AMP
Q1705
2SC4793
AMP
Q1706
JC501
AMP
Q1707
2SB774-T-34
BUFF
Q1708
BF199-AMMO
VM-MUTE-SW
Q1709
2SC2551
DRIVE-SW
D1701
1SS133
TEMP.COMP.
D1704
MTZJ-T-77-39C
STAB
D1705
MTZJ-T-77-39C
STAB
NECK ASSY
QP
QP
VM
Q.P.-
Q.P.+
VM
E
VM
<VM AMP>

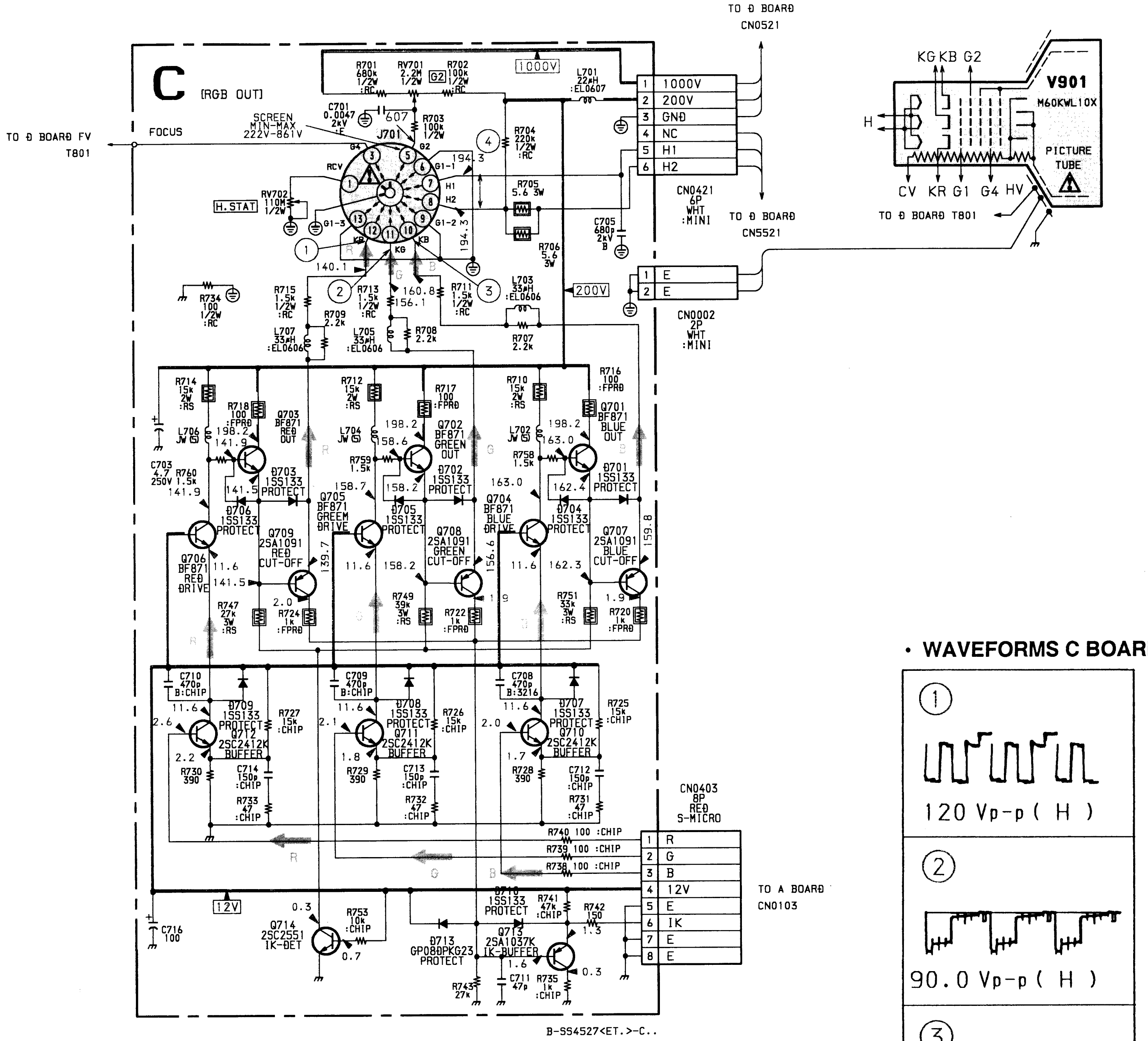
B-SS4527<ET.>-VM.

UK
6.552MHz
47PF/50V
6.0MHz
–
1MMH
–
13.104MHz

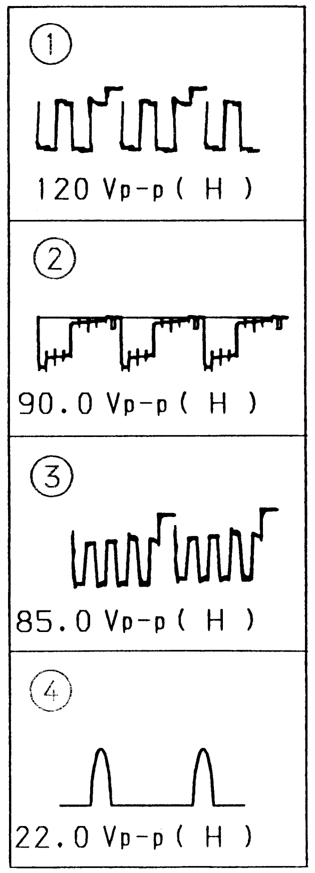
• A1 BOARD IC1101 TDA8732


VEEA
VCCA
CFO
SFO
SFI
CFI
QPSKIN
LIMITER
COSTAS LOOP QUADRATURE DEMODULATOR
CARRIER PHASE RECOVERY
CARLPF
X/2
DIV/2
CARRIER OSCILLATOR
CAROSC
IMC
QMC
TEST
CLKLPF
BIT-RATE CLOCK RECOVERY
DECODER AND PARALLEL TO SERIAL CONVERTER
DATA
CLKOSC
CLOCK OSCILLATOR
TIMING GENERATOR
CLOCK ROCESSING
VEED
VCCD
CSM
CLK
CLKIN


12V
NECK ASSY
QP
QP
VM
Q.P.-
Q.P.+
VM
E
L1702 56μH :EL0606
D1701 1SS133 TEMP.COMP.
R1703 100
R1707 390
Q1701 JC501 AMP
Q1702 JA101 AMP
D1702 1SS133 LIM
D1703 1SS133 LIM
C1708 0.047 F
Q1704 JC501 AMP
R1720 100k
D1706 1SS133 TRIG
D1707 1SS133 TRIG
Q1706 JC501 AMP
Q1707 2SD774-T-34 BUFF
R1729 120 2W :RS
135V
L1701
C1705 220 16V
C1706 33 160V
Q1703 2SA1837 AMP
Q1705 2SC4793 AMP
Q1709 2SC2551 DRIVE-SW
Q1708 BF199-AMMO VM-MUTE-SW
D1704 MTZJ-T-77-39C STAB
D1705 MTZJ-T-77-39C STAB
C1712 2.2 160V
VM
<VM AMP>
B-SS4527<ET.>-VM.

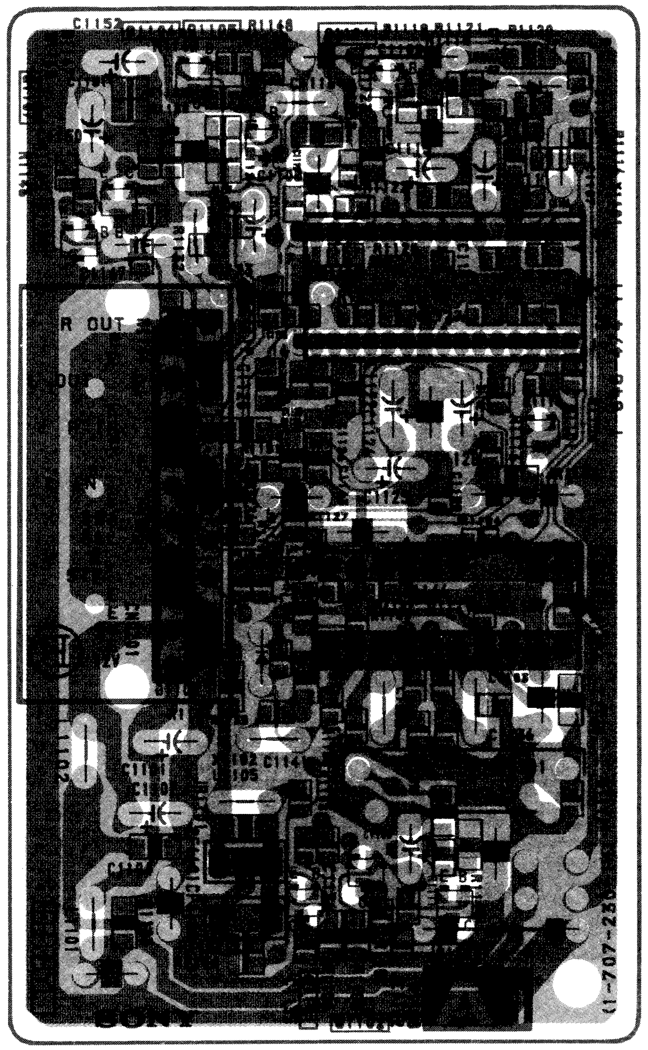

C [RGB OUT]
TO D BOARD FV T801
FOCUS
SCREEN MIN-MAX 222V-861V
C701 0.0047 2kV
J701
RV702 110M 1/2W
H.STAT
1000V
L701 22μH :EL0607
TO D BOARD CN0521
1 1000V
2 200V
3 GND
4 NC
5 H1
6 H2
CN0421 6P WHT :MINI
TO D BOARD CN5521
C705 680p 2kV B
200V
1 E
2 E
CN0002 2P WHT :MINI
KG KB G2
V901
M60KWL10X
H
PICTURE TUBE
CV KR G1 G4 HV
TO D BOARD T801
Q703 BF871 RED OUT
Q702 BF871 GREEN OUT
Q701 BF871 BLUE OUT
D703 1SS133 PROTECT
D702 1SS133 PROTECT
D701 1SS133 PROTECT
Q706 BF871 RED DRIVE
Q705 BF871 GREEN DRIVE
Q704 BF871 BLUE DRIVE
Q709 2SA1091 RED CUT-OFF
Q708 2SA1091 GREEN CUT-OFF
Q707 2SA1091 BLUE CUT-OFF
Q712 2SC2412K BUFFER
Q711 2SC2412K BUFFER
Q710 2SC2412K BUFFER
CN0403 8P RED S-MICRO
1 R
2 G
3 B
4 12V
5 E
6 IK
7 E
8 E
TO A BOARD CN0103
12V
Q714 2SC2551 IK-DET
D713 GP08DPKG23 PROTECT
Q713 2SA1037K IK-BUFFER
B-SS4527<ET.>-C..

• WAVEFORMS C BOARD

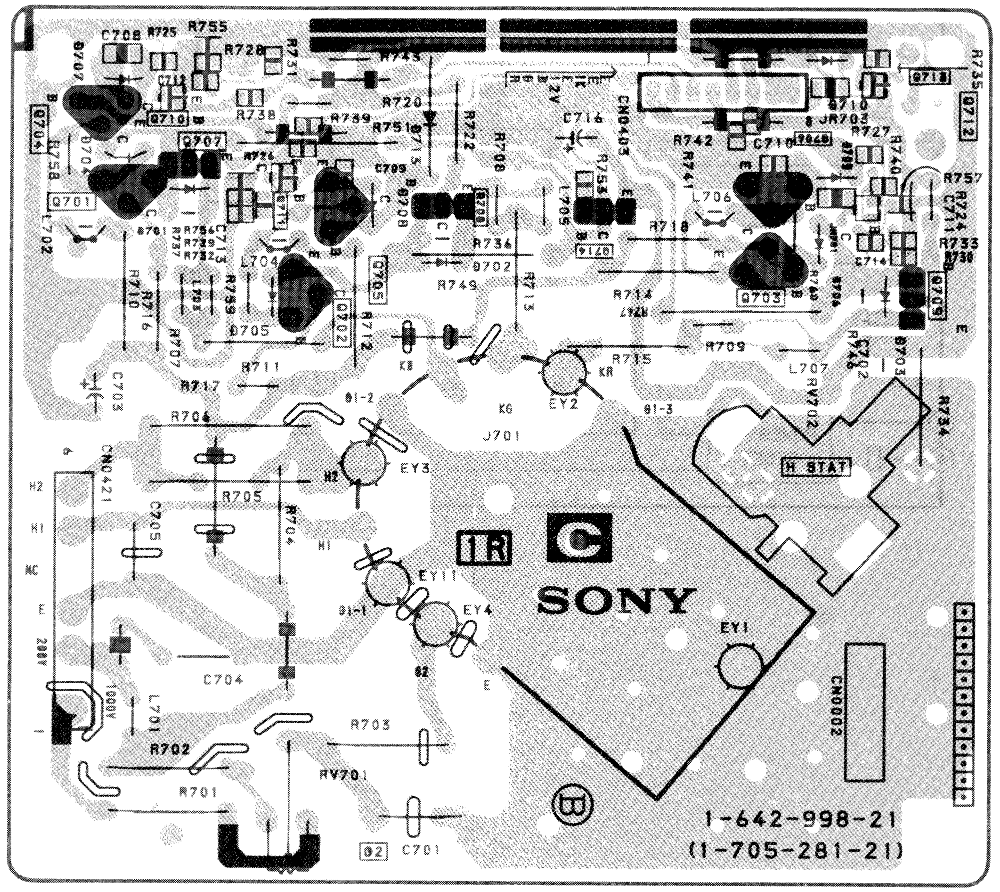


A1 [NICAM DECODER, NICAM DEMODULATOR] C [R.G.B OUT] VM [VM AMP]

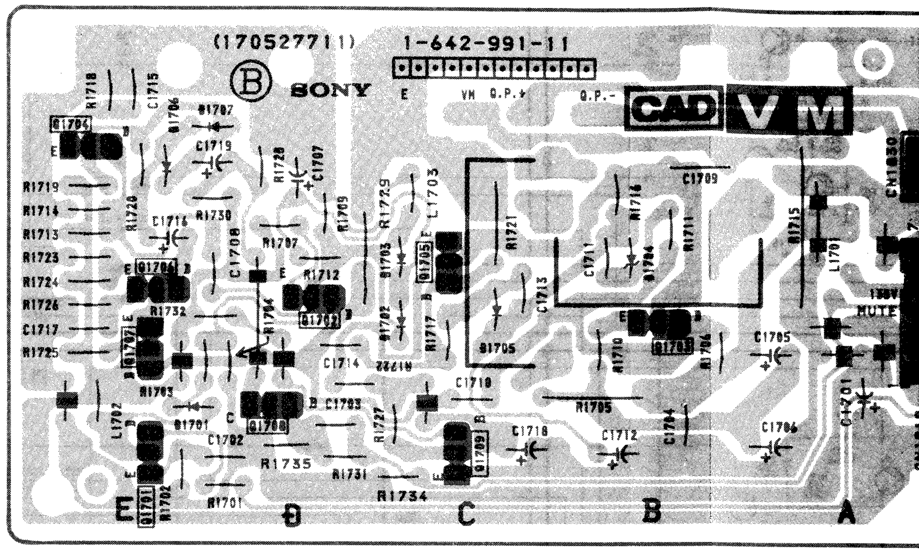
– A1 BOARD – (Spanish, UK Model only)


C1152
R1148
R OUT
SONY
1-707-28

– C BOARD –

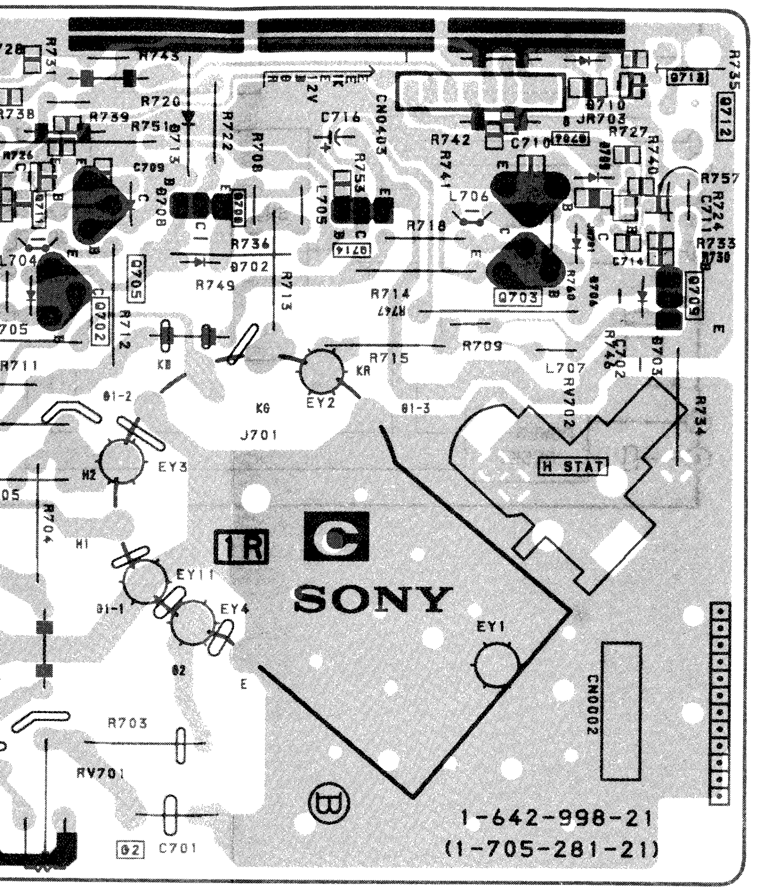

R755
R728
R743
R720
R739
R751
Q707
Q701
Q704
Q705
Q702
Q703
Q709
Q712
Q713
R736
R749
R714
R715
R709
R718
L706
L707
RV702
H STAT
CN0421
J701
EY1
EY2
EY3
EY4
EY11
1R
C
SONY
CN0002
R703
RV701
R702
R701
C701
C704
C705
R705
R706
R717
R711
1-642-998-21
(1-705-281-21)

– VM BOARD –

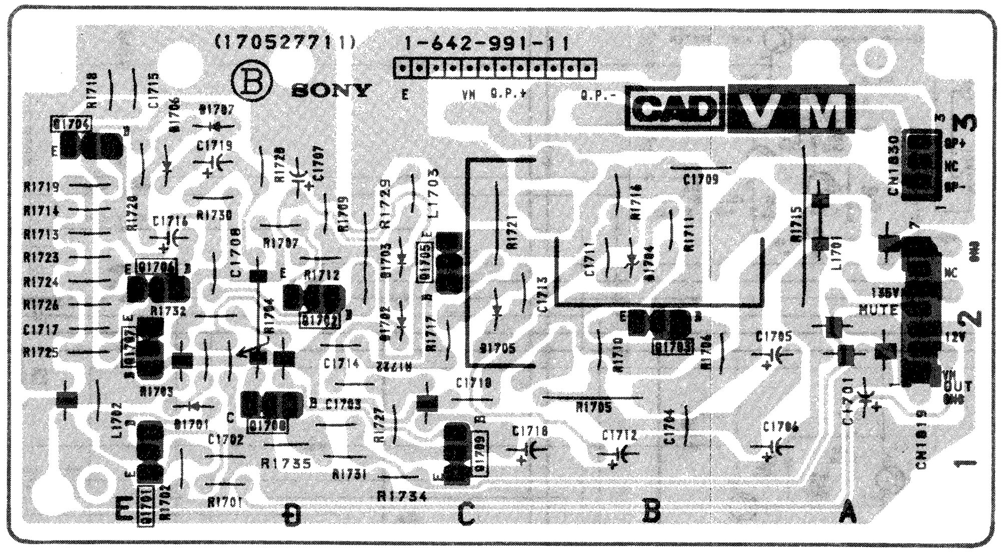

(170527711)
1-642-991-11
SONY
CAD
V M
VM O.P.+
O.P.-
R1719
R1714
R1713
R1723
R1724
R1726
C1717
R1725
R1735
R1731
R1734
R1701
R1702
C1709
C1705
C1706
C1712
C1718
C1710
Q1705
E
D
C
B
A

Note :

- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.

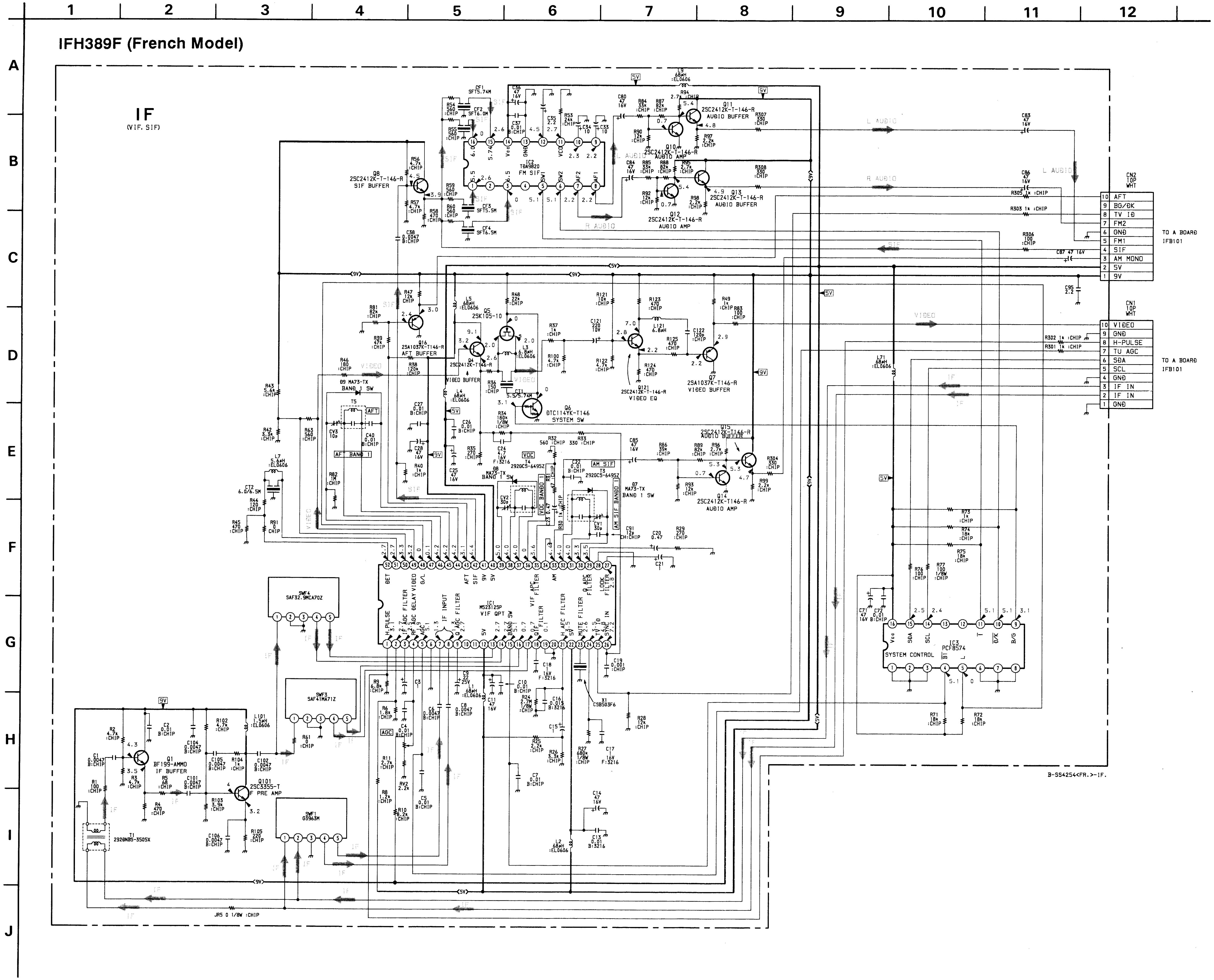

SONY
C
1R
1-642-998-21
(1-705-281-21)
H STAT
CN0002
J701
EY1
EY2
EY3
EY4
RV701
RV702
C701
Q703
Q705
Q702

- VM BOARD -

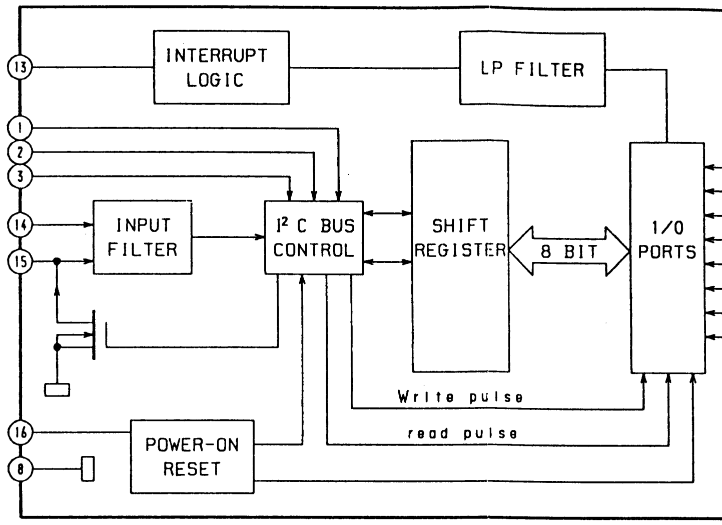

(170527711)
1-642-991-11
SONY
CAD
VM
CN1830
CN1819
MUTE
135V
12V
VM OUT
A
B
C
D
E
1
2
3

Schematic diagrams
IF boards ➡

IFH389F (French Model)

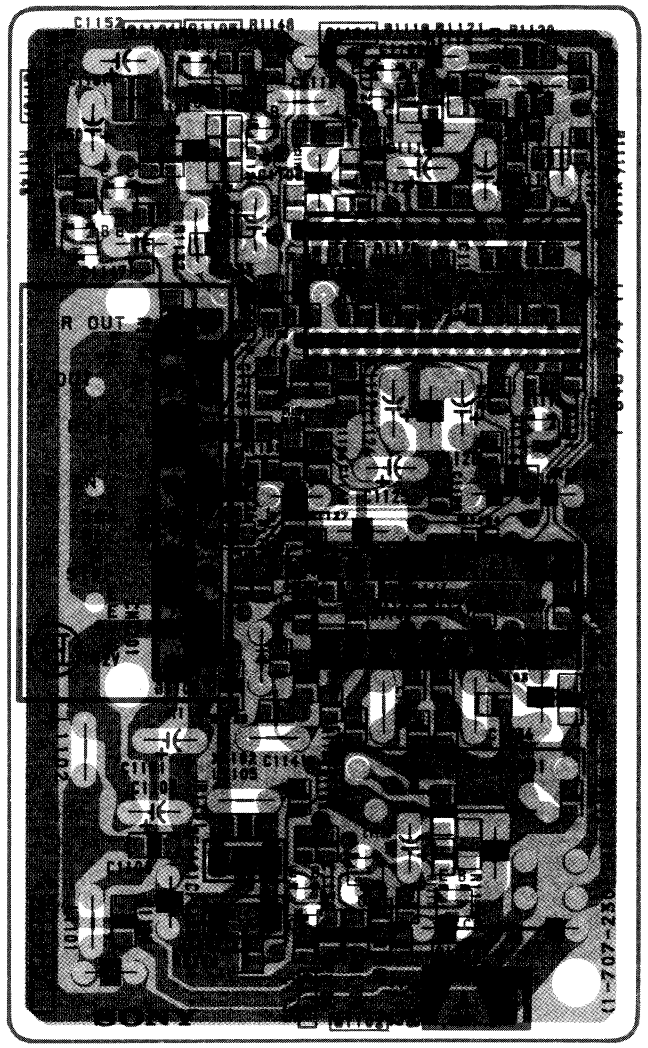

1
2
3
4
5
6
7
8
9
10
11
12
A
B
C
D
E
F
G
H
I
J
IF
(VIF, SIF)
IC1 M52312SP VIF QPT
IC2 TDA3820 FM SIF
IC3 PCF8574 SYSTEM CONTROL
Q1 BF199-AMMO IF BUFFER
Q101 2SC3355-T IF PRE AMP
Q4 2SC2412K-T146-R VIDEO BUFFER
Q5 2SK105-10
Q6 DTC114YK-T146 SYSTEM SW
Q7 2SA1037K-T146-R VIDEO BUFFER
Q8 2SC2412K-T-146-R SIF BUFFER
Q10 2SC2412K-T-146-R AUDIO AMP
Q11 2SC2412K-T-146-R AUDIO BUFFER
Q12 2SC2412K-T-146-R AUDIO AMP
Q13 2SC2412K-T-146-R AUDIO BUFFER
Q14 2SC2412K-T-146-R AUDIO AMP
Q15 2SC2412K-T-146-R AUDIO BUFFER
Q16 2SA1037K-T146-R AFT BUFFER
Q121 2SC2412K-T-146-R VIDEO EQ
SWF1 G3963M
SWF3 SAF41MA71Z
SWF4 SAF32.9MCA70Z
T1 2926NBS-3505X
X1 CSB503F6
CN2 10P WHT
10 AFT
9 BG/DK
8 TV I0
7 FM2
6 GND
5 FM1
4 SIF
3 AM MONO
2 5V
1 9V
TO A BOARD IFB101
CN1 10P WHT
10 VIDEO
9 GND
8 H-PULSE
7 TU AGC
6 SDA
5 SCL
4 GND
3 IF IN
2 IF IN
1 GND
TO A BOARD IFB101
L AUDIO
R AUDIO
VIDEO
SIF
IF
9V
5V
AFT
AF BAND 1
VOC
AM SIF
AGC
B-S54254<FR.>-IF.

• IF BOARD IC3 PC8574 (French Model)

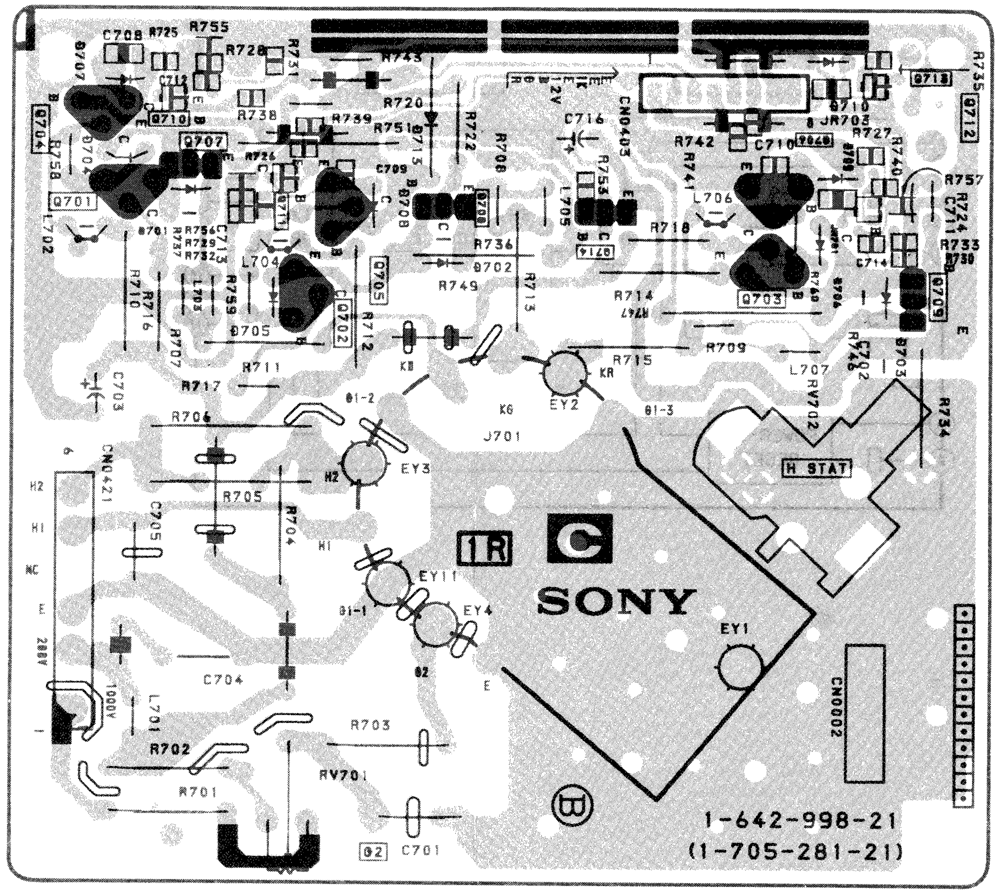

13
1
2
3
14
15
16
8
INTERRUPT LOGIC
LP FILTER
INPUT FILTER
I² C BUS CONTROL
SHIFT REGISTER
8 BIT
I/O PORTS
POWER-ON RESET
Write pulse
read pulse

A1 [NICAM DECODER, NICAM DEMODULATOR] **C** [R.G.B OUT] **VM** [VM AMP]

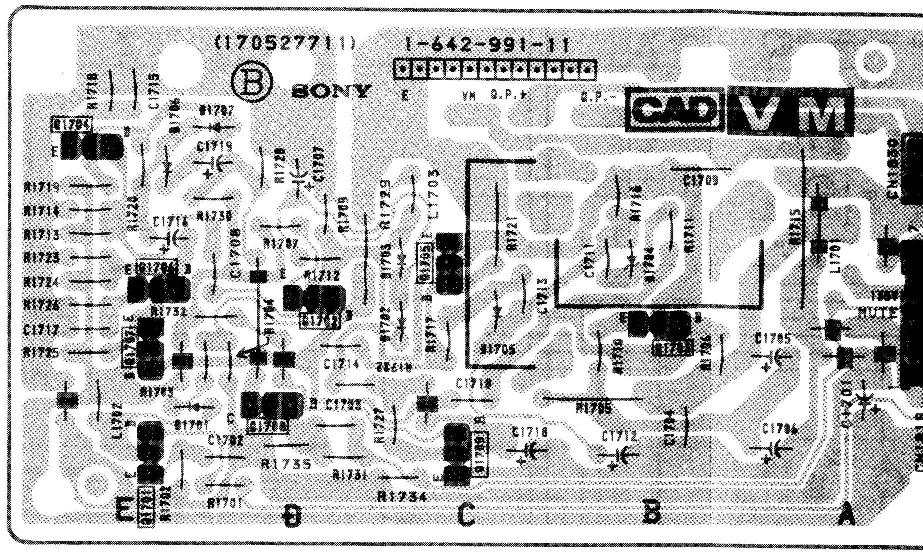
– A1 BOARD – (Spanish, UK Model only)


R OUT
(1-707-23

– C BOARD –

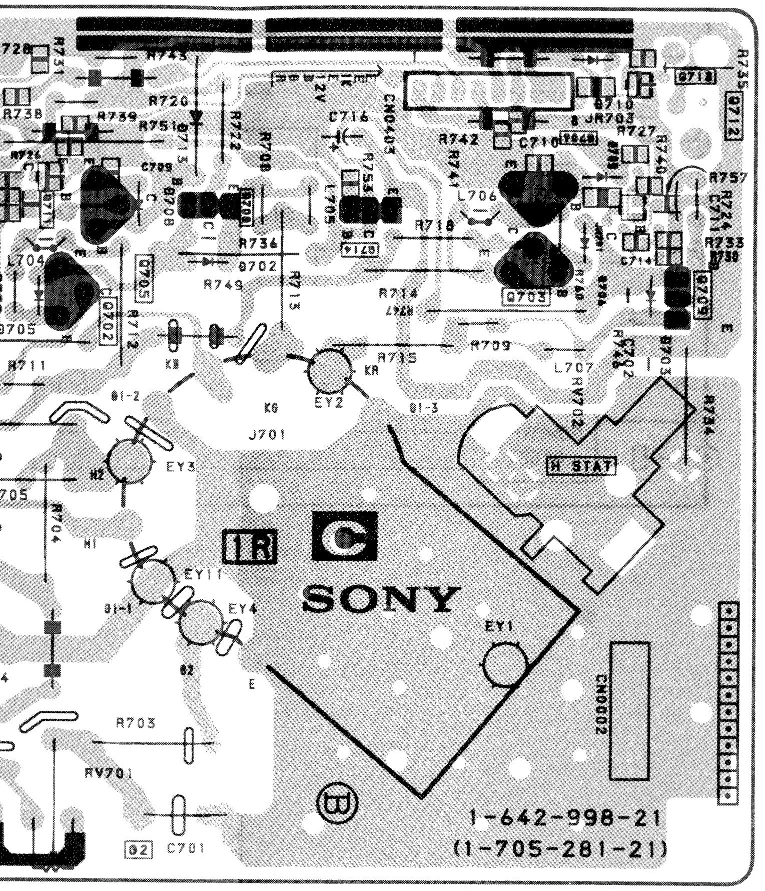

H STAT
1R
C
SONY
EY1
EY2
EY3
EY4
EY11
J701
CN0002
1-642-998-21
(1-705-281-21)

– VM BOARD –

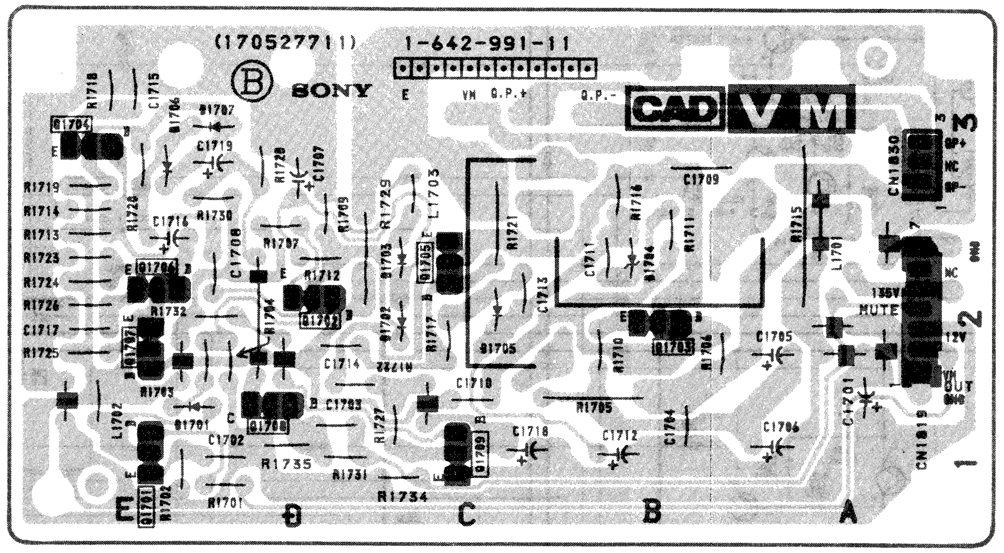

(170527711)
1-642-991-11
SONY
CAD
V M
A
B
C
D

Note :

- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.


1R
C
SONY
H STAT
J701
EY1
EY2
EY3
EY4
EY11
RV701
RV702
CN0002
CN0403
R703
R704
L707
C701
1-642-998-21
(1-705-281-21)

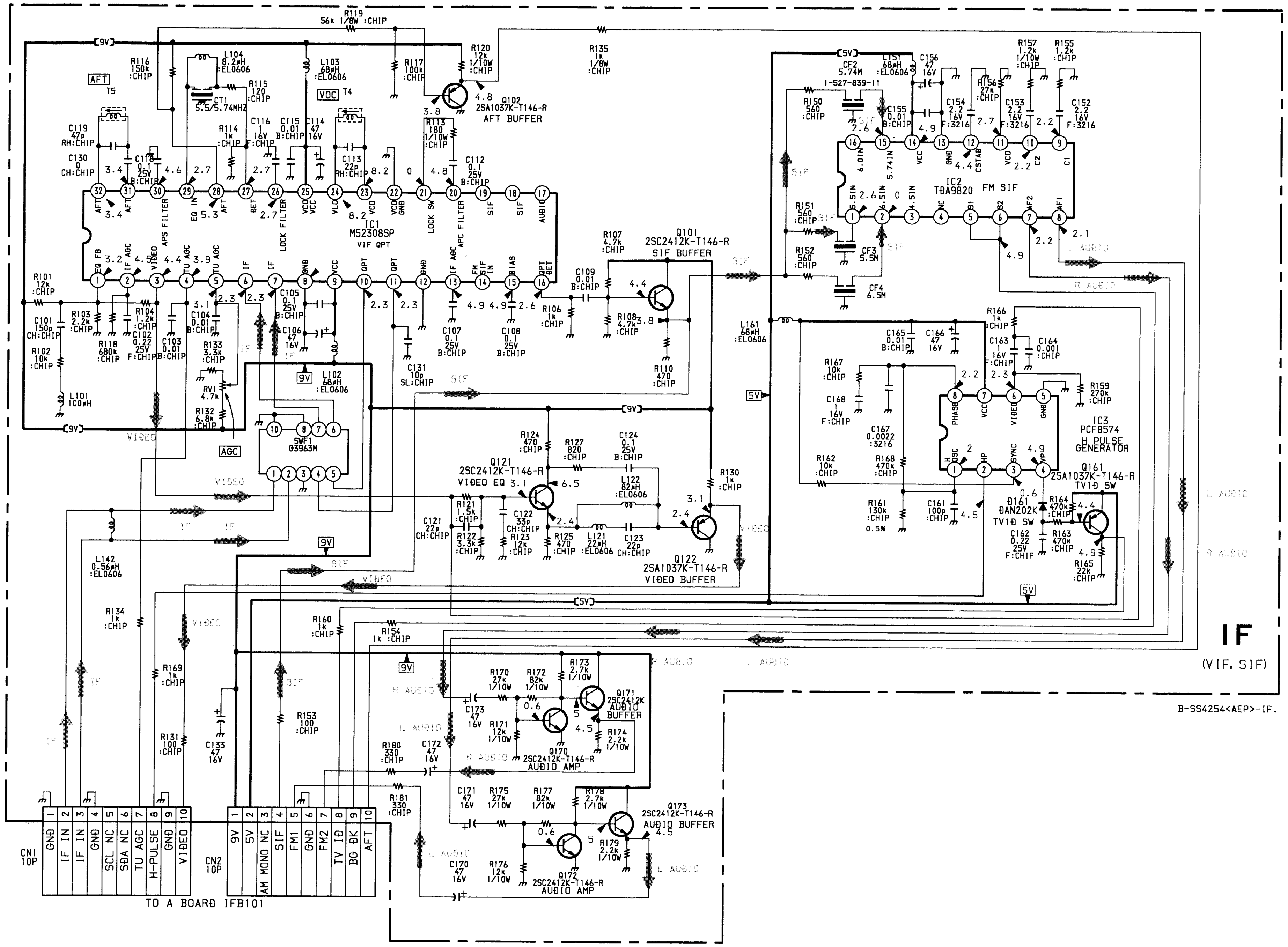
– VM BOARD –


(170527711)
1-642-991-11
SONY
CAD
VM
Q.P.+
Q.P.-
CN1830
CN1819
MUTE
135V
12V
VM OUT
NC
3
2
1
L1703
L1702
L1701
E
D
C
B
A

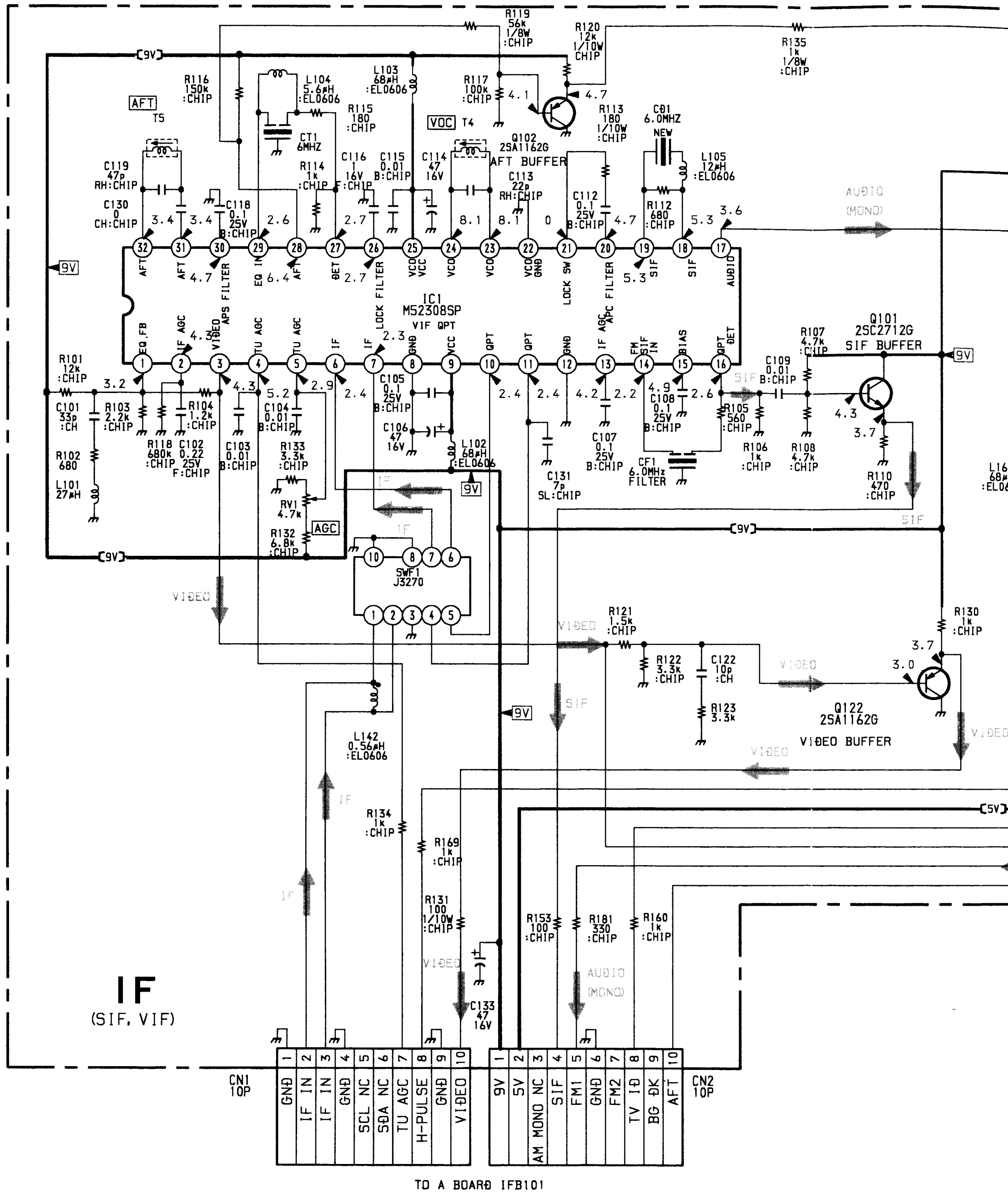
Schematic diagrams

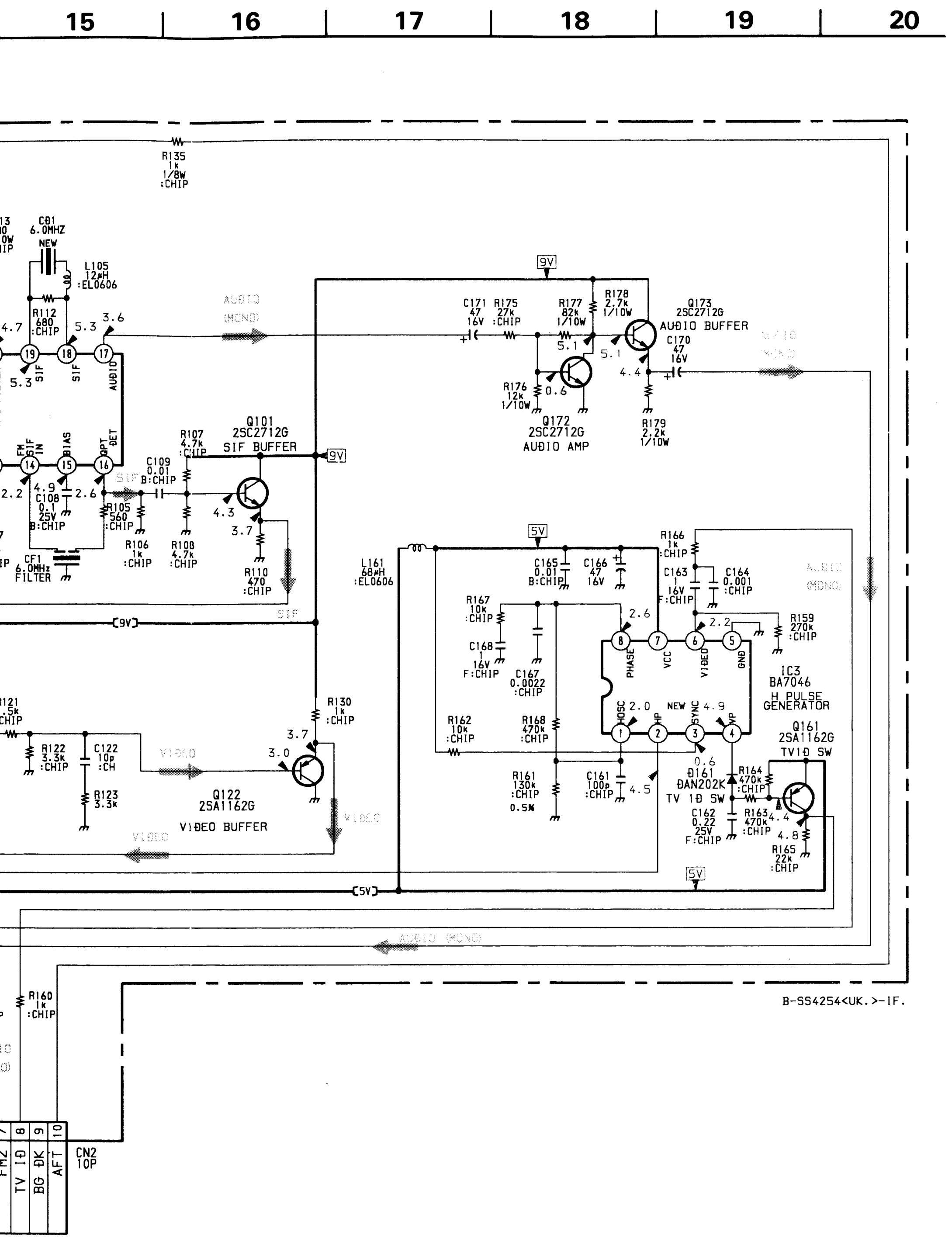
IF boards ➡

IFH389 (AEP, Italian, Spanish Model)


IF
(VIF, SIF)
IC1 M52308SP VIF QPT
IC2 TDA9820 FM SIF
IC3 PCF8574 H PULSE GENERATOR
SWF1 G3963M
Q101 2SC2412K-T146-R SIF BUFFER
Q102 2SA1037K-T146-R AFT BUFFER
Q121 2SC2412K-T146-R VIDEO EQ
Q122 2SA1037K-T146-R VIDEO BUFFER
Q161 2SA1037K-T146-R TV1D SW
D161 DAN202K TV1D SW
Q170 2SC2412K-T146-R AUDIO AMP
Q171 2SC2412K AUDIO BUFFER
Q172 2SC2412K-T146-R AUDIO AMP
Q173 2SC2412K-T146-R AUDIO BUFFER
AFT
VOC
AGC
CN1 10P
GND
IF IN
IF IN
GND
SCL NC
SDA NC
TU AGC
H-PULSE
GND
VIDEO
CN2 10P
9V
5V
AM MONO NC
SIF
FM1
GND
FM2
TV 1D
BG DK
AFT
TO A BOARD IFB101
B-SS4254<AEP>-IF.

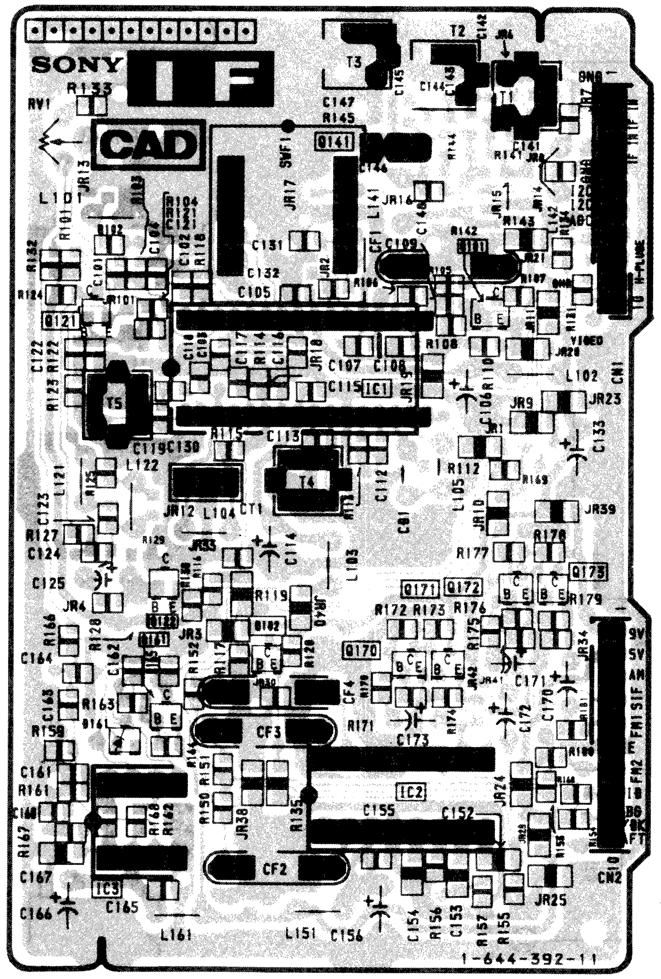
IFH385 (UK Model)


IF
(SIF, VIF)
IC1 M52308SP VIF QPT
SWF1 J3270
Q101 2SC2712G SIF BUFFER
Q102 2SA1162G AFT BUFFER
Q122 2SA1162G VIDEO BUFFER
CF1 6.0MHZ FILTER
AFT
VOC
AGC
AUDIO (MONO)
CN1 10P
GND
IF IN
IF IN
GND
SCL NC
SDA NC
TU AGC
H-PULSE
GND
VIDEO
CN2 10P
9V
5V
AM MONO NC
SIF
FM1
GND
FM2
TV 1D
BG DK
AFT
TO A BOARD IFB101

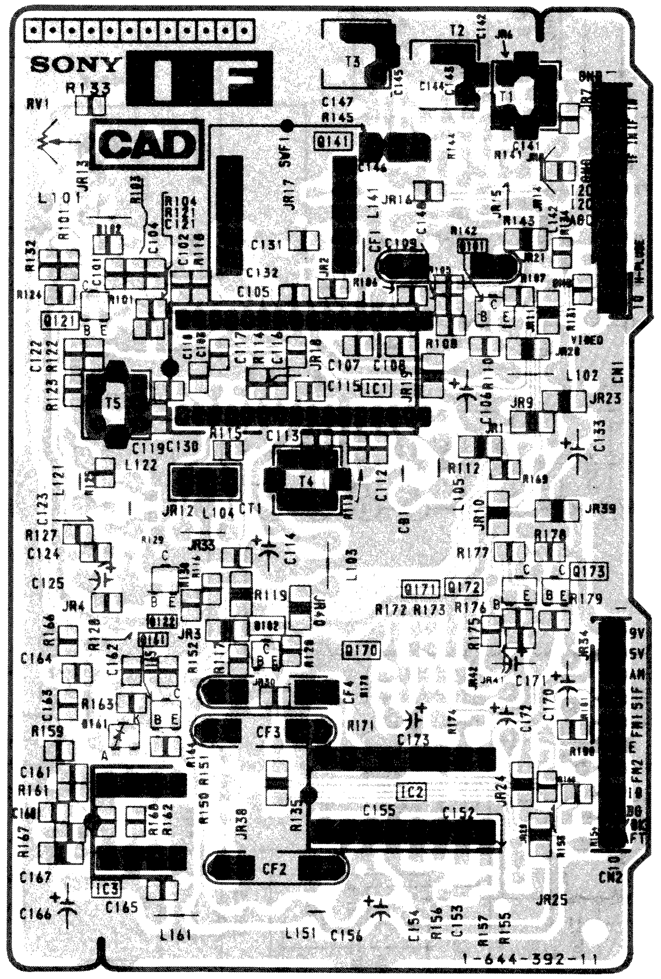

15
16
17
18
19
20
R135 1k 1/8W :CHIP
CF1 6.0MHz FILTER
L105 12μH
AUDIO (MONO)
Q101 2SC2712G SIF BUFFER
Q172 2SC2712G AUDIO AMP
Q173 2SC2712G AUDIO BUFFER
L161 68μH
IC3 BA7046 H PULSE GENERATOR
Q161 2SA1162G TV1D SW
Q122 2SA1162G VIDEO BUFFER
VIDEO
SIF
AUDIO (MONO)
CN2 10P
TV 1D
BG DK
AFT
B-SS4254<UK.>-IF.

IF [VIF, SIF]

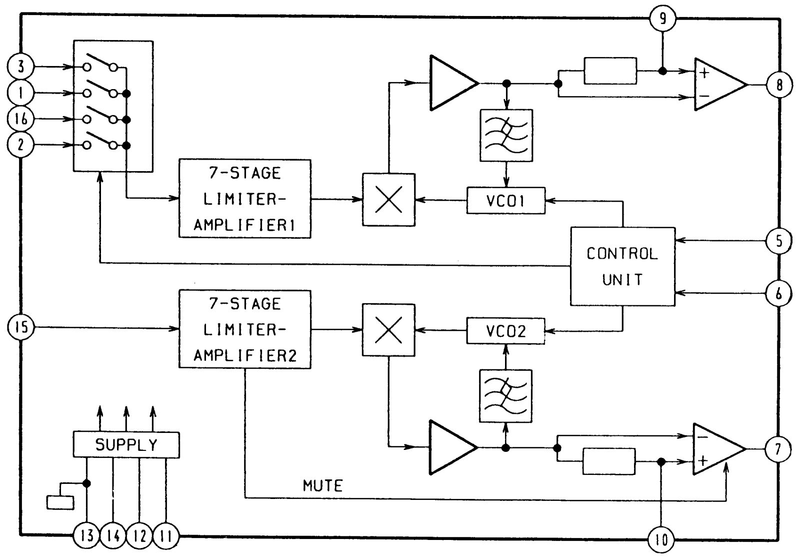
– IF BOARD – (AEP, Italian, Spanish Model)


SONY
IF
CAD
1-644-392-11

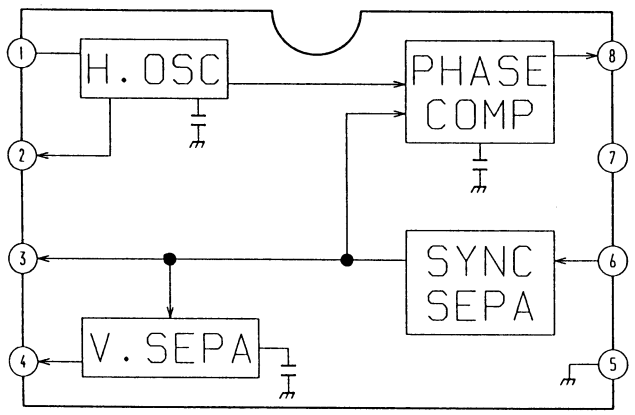
– IF BOARD – (UK Model)


SONY
IF
CAD
1-644-392-11

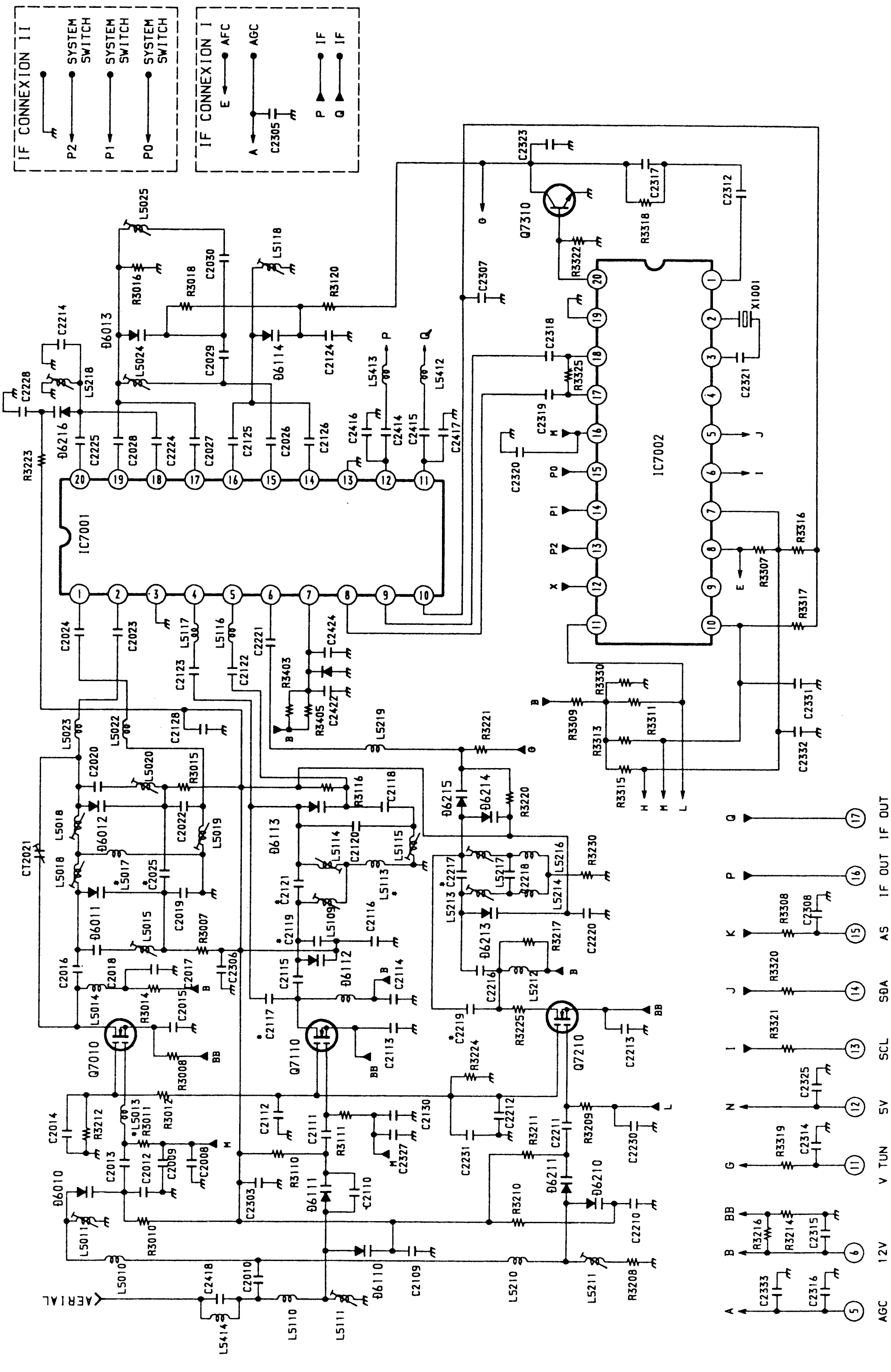
• IF BOARD IC2 TDA9820 (AEP, Italian, Spanish Model)


7-STAGE LIMITER-AMPLIFIER1
VCO1
CONTROL UNIT
7-STAGE LIMITER-AMPLIFIER2
VCO2
SUPPLY
MUTE
1
2
3
5
6
7
8
9
10
11
12
13
14
15
16

• IF BOARD IC3 BA7046 (AEP, Italian, Spanish Model)


H.OSC
PHASE COMP
SYNC SEPA
V.SEPA
1
2
3
4
5
6
7
8

5-4. SCHEMATIC DIAGRAM OF TUNER
A BOARD TU101 UV916H

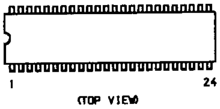

IF CONNEXION II
P2
P1
P0
SYSTEM SWITCH
IF CONNEXION I
A
C2305
E
AFC
AGC
P
Q
IF
IC7001
IC7002
Q7010
Q7110
Q7210
Q7310
X1001
AERIAL
AGC
12V
V TUN
5V
SCL
SDA
AS
IF OUT
IF OUT
A
B
BB
G
N
I
J
K
P
Q
H
M
L

Schematic diagrams

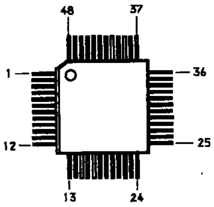
← IF boards

5-5. SEMICONDUCTORS

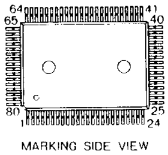
CXA1545AS
CXA1587S


48
25
1
24
(TOP VIEW)

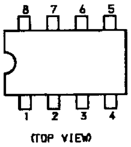
CXD2018Q


48
37
1
36
12
25
13
24

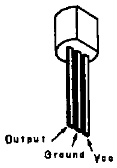
CXD2024Q


64
41
65
40
80
25
1
24
MARKING SIDE VIEW

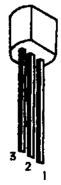
LM358D
LM393P
LM358P
TDA2822M
TDA4605-3
TEA2114
μPC358C
μPC393C
X24C16P


8
7
6
5
1
2
3
4
(TOP VIEW)

MC78L08ACPRP
MC78L12ACPRP


Output
Ground
Vcc

NJM78L05A
NJM78L05F
NJM78M09FA



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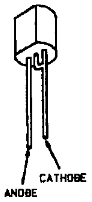
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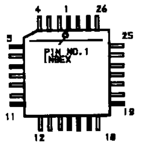
CATHODE

SBX1610-11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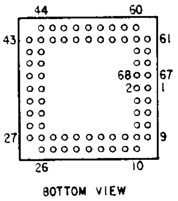
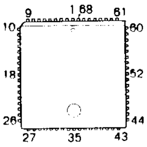
1
26
5
25
PIN NO.1
INDEX
11
19
12
18

SDA30C162-GEG


44
60
43
61
67
68
2
1
27
9
26
10
BOTTOM VIEW

SDA5273-B14-GEG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88
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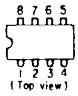
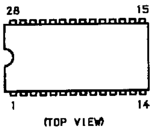
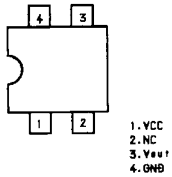
SDA9085


8 7 6 5
1 2 3 4
(Top view)

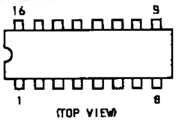
SDA91872X-GEG
SDA91883X-GEG
TDA6612


28
15
1
14
(TOP VIEW)

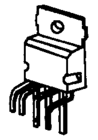
SFH617G-1


4
3
1
2
1.VCC
2.NC
3.Vout
4.GND

SN74LS221N
TDA466A/V2
TDA9160/N2


16
9
1
8
(TOP VIEW)

TDA2052
TDA8138
TDA8179S



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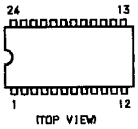
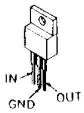
TDA9145/N1


24
13
1
12
(TOP VIEW)

TEA7605



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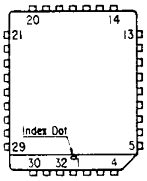
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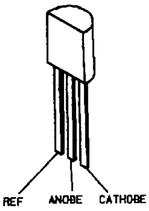
14
21
13
Index Dot
29
5
30
32
1
4

TL431CLP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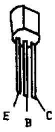
CATHODE

BF199



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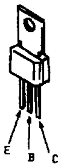

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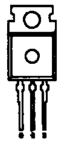

DTA124EK
DTA144EK
DTA144TK
DTC114EK
DTC124EK
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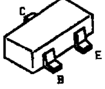
2SC1623-L5L6
2SC2412K-T-146-R
2SC2412K-T-146-QR
2SC2413KQ



JA101-Q
JC501-Q-AMMO
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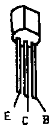
2SA1091-O
2SC1890A-D
2SC2551-O



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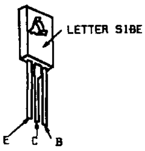
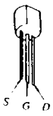

LETTER SIDE
E
C
B

2SA1837



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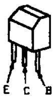

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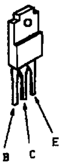
2SD1763A



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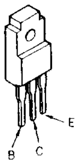

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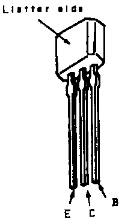
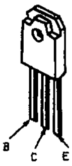

Letter side
E
C
B

2SC4927-01



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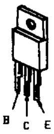

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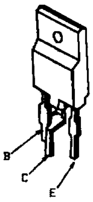


2SD2

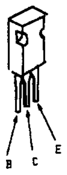
2SK

DAN
DAP
1S2

DA2

D5

2096-EF



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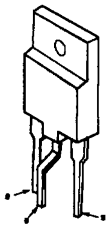
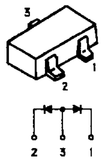


202K
202K
836



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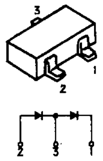
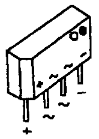


SS226



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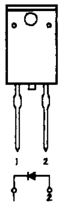

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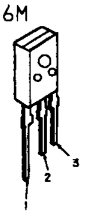

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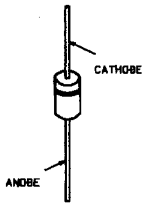
CATHODE
ANODE

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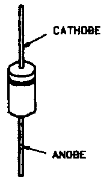
CATHODE
ANODE

ERA85-009
MTZJ-T-77-12B
MTZJ-T-77-13C
MTZJ-T-77-15A
MTZJ-T-77-2.2A
MTZJ-T-77-3.6A
MTZJ-T-77-30B
MTZJ-T-77-33C
MTZJ-T-77-39C
MTZJ-T-77-5.6A
MTZJ-T-77-5.6B
MTZJ-T-77-7.5A
MTZJ-T-77-9.1
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RD5.6ES-B1
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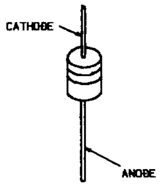
RD6.2ES-B2
RD7.5ES-B2


CATHODE
ANODE

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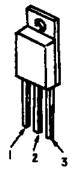

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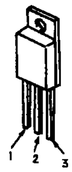
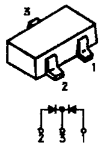
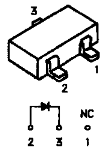


MA152WK



MA3030-H (TK)
MA3039H-TX
MA3047L-TX



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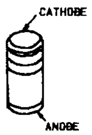
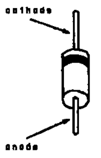
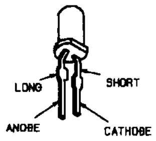

CATHODE
ANODE

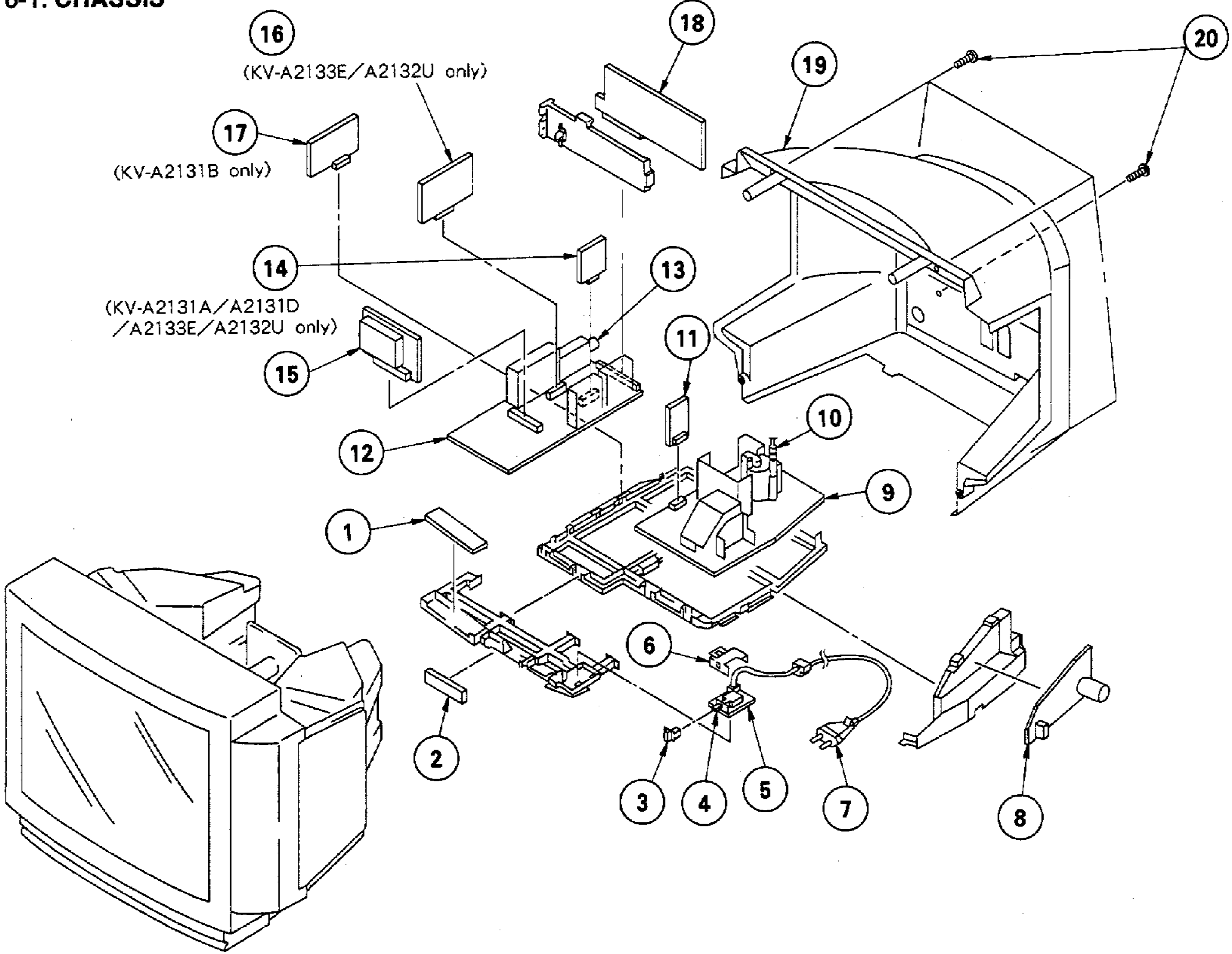
RGP02-17EL-6433


cathode
anode

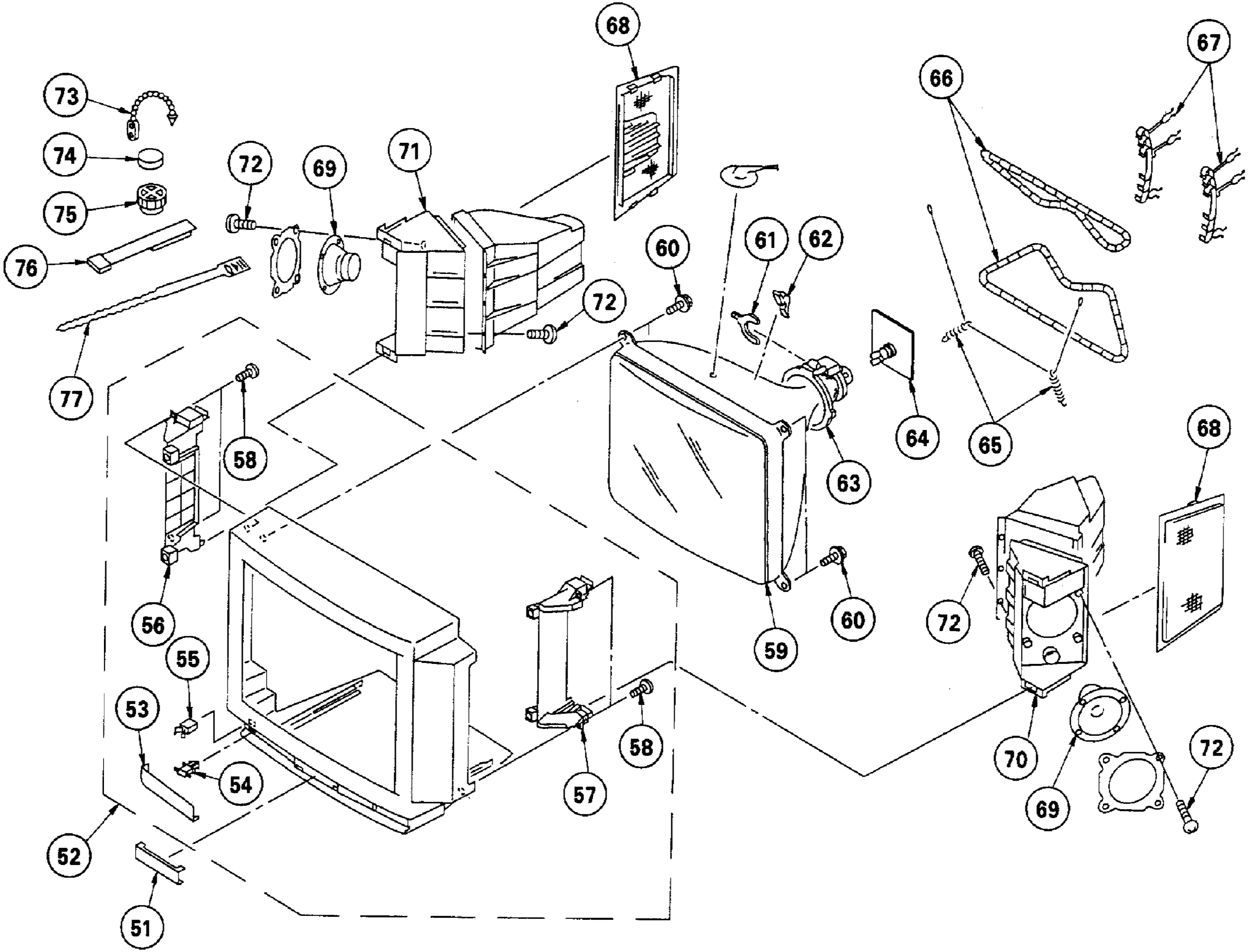
LD201VR


LONG
SHORT
ANODE
CATHODE

6-1. CHASSIS


(KV-A2133E/A2132U only)
(KV-A2131B only)
(KV-A2131A/A2131D
/A2133E/A2132U only)

6-2. PICTURE TUBE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